Roland®

GENERAL MIDI2

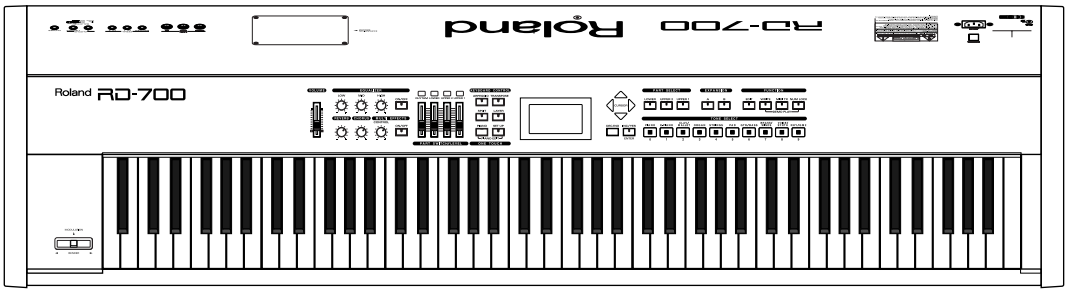
RD-700

Owner's Manual

Thank you, and congratulations on your choice of the Roland Digital Piano RD-700.

Before using this unit, carefully read the sections entitled: "IMPORTANT SAFETY INSTRUCTIONS" (p. 2), "USING THE UNIT SAFELY" (p. 3), and "IMPORTANT NOTES" (p. 5).

These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature provided by your new unit, Owner's Manual should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

ATTENTION: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

IMPORTANT SAFETY INSTRUCTIONS
SAVE THESE INSTRUCTIONS

WARNING - When using electric products, basic precautions should always be followed, including the following:

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Never use with a cart, stand, tripod, bracket, or table except as specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

For the U.K.

IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.

BLUE: NEUTRAL
BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.
Under no circumstances must either of the above wires be connected to the earth terminal of a three pin plug.

USING THE UNIT SAFELY

INSTRUCTIONS FOR THE PREVENTION OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

About ⚠WARNING and ⚠CAUTION Notices

⚠WARNING	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly.
⚠CAUTION	Used for instructions intended to alert the user to the risk of injury or material damage should the unit be used improperly. * Material damage refers to damage or other adverse effects caused with respect to the home and all its furnishings, as well to domestic animals or pets.

About the Symbols

⚠	The △ symbol alerts the user to important instructions or warnings.The specific meaning of the symbol is determined by the design contained within the triangle. In the case of the symbol at left, it is used for general cautions, warnings, or alerts to danger.
	The ⃠ symbol alerts the user to items that must never be carried out (are forbidden). The specific thing that must not be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the unit must never be disassembled.
	The ● symbol alerts the user to things that must be carried out. The specific thing that must be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the power-cord plug must be unplugged from the outlet.

ALWAYS OBSERVE THE FOLLOWING

⚠WARNING

- Before using this unit, make sure to read the instructions below, and the Owner's Manual.

- Do not open or perform any internal modifications on the unit. (The only exception would be where this manual provides specific instructions which should be followed in order to put in place user-installable options; see p. 15.)

- Do not attempt to repair the unit, or replace parts within it (except when this manual provides specific instructions directing you to do so). Refer all servicing to your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.

- Never use or store the unit in places that are:
  - Subject to temperature extremes (e.g., direct sunlight in an enclosed vehicle, near a heating duct, on top of heat-generating equipment); or are
  - Damp (e.g., baths, washrooms, on wet floors); or are
  - Humid; or are
  - Exposed to rain; or are
  - Dusty; or are
  - Subject to high levels of vibration.

- This unit should be used only with a rack or stand that is recommended by Roland.

- Use only the attached power-supply cord. Also, the supplied power cord must not be used with any other device.

⚠WARNING

- When using the unit with a rack or stand recommended by Roland, the rack or stand must be carefully placed so it is level and sure to remain stable. If not using a rack or stand, you still need to make sure that any location you choose for placing the unit provides a level surface that will properly support the unit, and keep it from wobbling.

- The unit should be connected to a power supply only of the type described in the operating instructions, or as marked on the unit.

- Do not excessively twist or bend the power cord, nor place heavy objects on it. Doing so can damage the cord, producing severed elements and short circuits. Damaged cords are fire and shock hazards!

- This unit, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level, or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should immediately stop using the unit, and consult an audiologist.

- Do not allow any objects (e.g., flammable material, coins, pins); or liquids of any kind (water, soft drinks, etc.) to penetrate the unit.

- In households with small children, an adult should provide supervision until the child is capable of following all the rules essential for the safe operation of the unit.

⚠WARNING

- Protect the unit from strong impact. (Do not drop it!)

- Do not force the unit's power-supply cord to share an outlet with an unreasonable number of other devices. Be especially careful when using extension cords—the total power used by all devices you have connected to the extension cord's outlet must never exceed the power rating (watts/amperes) for the extension cord. Excessive loads can cause the insulation on the cord to heat up and eventually melt through.

- Before using the unit in a foreign country, consult with your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.

- Always turn the unit off and unplug the power cord before attempting installation of the circuit board (p. 25).

- Do not put anything that contains water (e.g., flower vases) on this unit. Also, avoid the use of insecticides, perfumes, alcohol, nail polish, spray cans, etc., near the unit. Swiftly wipe away any liquid that spills on the unit using a dry, soft cloth.

⚠ CAUTION

- The unit should be located so that its location or position does not interfere with its proper ventilation.

- This (RD-700) for use only with Roland stand KS-17. Use with other stands is capable of resulting in instability causing possible injury.

- Always grasp only the plug on the power-supply cord when plugging into, or unplugging from, an outlet or this unit.

- At regular intervals, you should unplug the power plug and clean it by using a dry cloth to wipe all dust and other accumulations away from its prongs. Also, disconnect the power plug from the power outlet whenever the unit is to remain unused for an extended period of time. Any accumulation of dust between the power plug and the power outlet can result in poor insulation and lead to fire.

- Try to prevent cords and cables from becoming entangled. Also, all cords and cables should be placed so they are out of the reach of children.

- Never climb on top of, nor place heavy objects on the unit.

- Never handle the power cord or its plugs with wet hands when plugging into, or unplugging from, an outlet or this unit.

- Before moving the unit, disconnect the power plug from the outlet, and pull out all cords from external devices.

- Before cleaning the unit, turn off the power and unplug the power cord from the outlet (p. 25).

- Whenever you suspect the possibility of lightning in your area, pull the plug on the power cord out of the outlet.

- Install only the specified circuit boards (SRX Series). Remove only the specified screws (p. 15).

- Should you remove the screws fastening the board slot cover, make sure to put them in a safe place out of children's reach, so there is no chance of them being swallowed accidentally.

IMPORTANT NOTES

In addition to the items listed under "IMPORTANT SAFETY INSTRUCTIONS" and "USING THE UNIT SAFELY" on pages 2, 3 and 4, please read and observe the following:

Power Supply

- Do not connect this unit to same electrical outlet that is being used by an electrical appliance that is controlled by an inverter (such as a refrigerator, washing machine, microwave oven, or air conditioner), or that contains a motor. Depending on the way in which the electrical appliance is used, power supply noise may cause this unit to malfunction or may produce audible noise. If it is not practical to use a separate electrical outlet, connect a power supply noise filter between this unit and the electrical outlet.

- Before connecting this unit to other devices, turn off the power to all units. This will help prevent malfunctions and/or damage to speakers or other devices.

- Although the LCD and LEDs are switched off when the POWER switch is switched off, this does not mean that the unit has been completely disconnected from the source of power. If you need to turn off the power completely, first turn off the POWER switch, then unplug the power cord from the power outlet. For this reason, the outlet into which you choose to connect the power cord's plug should be one that is within easy reach.

Placement

- Using the unit near power amplifiers (or other equipment containing large power transformers) may induce hum. To alleviate the problem, change the orientation of this unit; or move it farther away from the source of interference.

- This device may interfere with radio and television reception. Do not use this device in the vicinity of such receivers.

- Do not expose the unit to direct sunlight, place it near devices that radiate heat, leave it inside an enclosed vehicle, or otherwise subject it to temperature extremes. Excessive heat can deform or discolor the unit.

- To avoid possible breakdown, do not use the unit in a wet area, such as an area exposed to rain or other moisture.

- Do not allow objects to remain on top of the keyboard. This can be the cause of malfunction, such as keys ceasing to produce sound.

Maintenance

- For everyday cleaning wipe the unit with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a cloth impregnated with a mild, non-abrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.

- Never use benzine, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

Additional Precautions

- Please be aware that the contents of memory can be irretrievably lost as a result of a malfunction, or the improper operation of the unit. To protect yourself against the risk of loosing important data, we recommend that you periodically save a backup copy of important data you have stored in the unit's memory in another MIDI device (e.g., a sequencer).

- Unfortunately, it may be impossible to restore the contents of data that was stored in another MIDI device (e.g., a sequencer) once it has been lost. Roland Corporation assumes no liability concerning such loss of data.

- Use a reasonable amount of care when using the unit's buttons, sliders, or other controls; and when using its jacks and connectors. Rough handling can lead to malfunctions.

- Never strike or apply strong pressure to the display.

- When connecting / disconnecting all cables, grasp the connector itself—never pull on the cable. This way you will avoid causing shorts, or damage to the cable's internal elements.

- A small amount of heat will radiate from the unit during normal operation.

- To avoid disturbing your neighbors, try to keep the unit's volume at reasonable levels. You may prefer to use headphones, so you do not need to be concerned about those around you (especially when it is late at night).

- When you need to transport the unit, package it in the box (including padding) that it came in, if possible. Otherwise, you will need to use equivalent packaging materials.

- Use only the specified expression pedal (EV-5; sold separately). By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.

Main Features

Progressive Hammer Action

The RD-700 features a “progressive hammer action,” a new and even more advanced form of Roland's popular keyboard hammer action that realistically reproduces the comfortable, natural touch of a grand piano. Basic percussive and damper functions are also improved, recreating the subtle changes in touch occurring between registers as you move across the keyboard.

In addition, the progressive hammer action keyboard has been designed with consideration given to the environment, and the hammer section is completely lead-free.

New Piano Tones

The RD-700's authentic piano Tones feature wide dynamic range and rich expressive power. It is also furnished with a wealth of electronic piano, organ, string, synth pad, and other Tones that allow you to use the instrument as a stage piano. Once you try it onstage, you'll come to fully understand its capabilities.

Also included is a “Piano Edit” function that allows you to make subtle changes to the piano Tones, allowing you to create Tones for all kinds of performance situations (p. 66).

A Full 128 Voices

The RD-700 features 128-voice polyphony, with all sounds available in every performance mode. Enjoy natural performances even when layering multiple sounds.

Simple Push-Button Operation

You can access Split and Layer modes and carry out other main operations simply by pressing a single button (p. 41).

Furthermore, pressing the ONE TOUCH [PIANO] button lets you immediately switch to the settings most suited for piano performances, regardless of the mode or settings currently in effect (p. 35).

Full-Graphic LCD Screen

The panel includes a high-visibility fully graphic liquid crystal display. This allows you to carry out operations smoothly while viewing Tone names and other information in the easy-to-read LCD screen.

High-Quality Effects

In addition to favorite Roland synthesizer and XV Series multi-effects, the RD-700 also features a sympathetic resonance effect that reproduces the resonance of an acoustic piano. You can also get realistic tone changes by pressing the damper pedal (p. 76). And the digital equalizer lets you make an even wider range of Tone adjustments (p. 73).

Equipped With Organ Tone Wheel Sound Generator

For organ Tones, the RD-700 comes equipped with an organ Tone wheel sound generator used in the Roland Combo Organ VK-7. This sound generator lets you recreate organ sounds, changing the level of each footage (p. 75).

Rhythm and Arpeggiator Functions

You can play back Rhythm patterns and perform arpeggios with the press of a single button.

Enjoy a variety of performance techniques, with backing using realistic drum sounds for a real session feel, arpeggios and cutting you get just by playing the chords, and more (p. 49, p. 51).

Fast MIDI Control

You can also control various functions, such as adjusting volume levels and selecting Tones, simply and easily from an external MIDI device. This provides fast and intuitive control when using the keyboard on stage (p. 59).

Expandability

You can install up to two SRX Series Wave Expansion Boards, a favorite for use with Roland's XV Series.

Starting with the “SRX-02 Concert Grand” Tone, you can enjoy performing with the most up-to-date Tones available as they are continually released (p. 15).

Sophisticated Design

The great-looking titanium-colored instrument body makes for a top-class onstage image. With simple rear cable connections, the design also shows that due consideration has been given to operability.

GM/GM2 Compatible

The RD-700 is compatible with both General MIDI and General MIDI 2 standards. When working with music files that conforms to General MIDI and/or General MIDI 2 (GM scores), you can combine the RD-700 with a sequencer, and use the RD-700 to play back the data.

Convention Used in This Manual

- Words enclosed in square brackets [ ] indicate panel buttons.
  Example: [SPLIT] indicates the SPLIT button.
- (p. **) indicates a reference page
- The explanations in this manual include illustrations that depict what should typically be shown by the display. Note, however, that your unit may incorporate a newer, enhanced version of the system (e.g., includes newer sounds), so what you actually see in the display may not always match what appears in the manual.

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General MIDI

General MIDI is a set of recommendations which seeks to provide a way to go beyond the limitations of proprietary designs, and standardize the MIDI capabilities of sound generating devices. Sound generating devices and music files that meet the General MIDI standard bear the General MIDI logo (GENERAL MIDI). Music files bearing the General MIDI logo can be played back using any General MIDI sound generating unit to produce essentially the same musical performance.

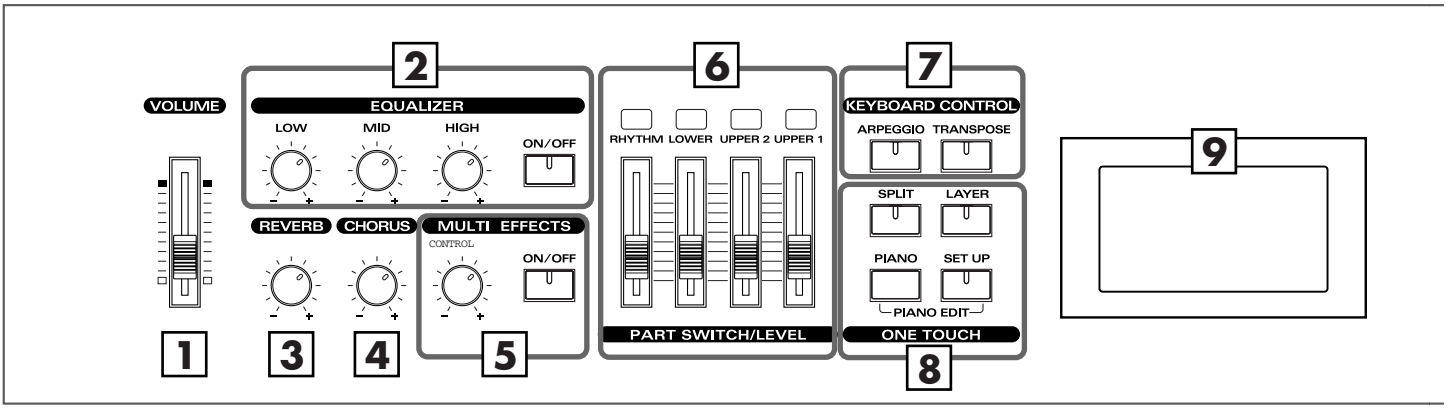
General MIDI 2

The upwardly compatible General MIDI 2 (GENERAL MIDI 2) recommendations pick up where the original General MIDI left off, offering enhanced expressive capabilities, and even greater compatibility. Issues that were not covered by the original General MIDI recommendations, such as how sounds are to be edited, and how effects should be handled, have now been precisely defined. Moreover, the available sounds have been expanded. General MIDI 2 compliant sound generators are capable of reliably playing back music files that carry either the General MIDI or General MIDI 2 logo.

In some cases, the conventional form of General MIDI, which does not include the new enhancements, is referred to as “General MIDI 1” as a way of distinguishing it from General MIDI 2.

Panel Descriptions

Front Panel



1 VOLUME Slider

Adjusts the overall volume that is output from the rear panel OUTPUT jacks and PHONES jack (p. 25).

2 EQUALIZER

[ON/OFF]

Turns the equalizer on/off (p. 48).

[LOW] knob

Adjusts the sound's low-frequency range.

[MID] knob

Adjusts the sound's midrange frequencies.

[HIGH] knob

Adjusts the sound's high-frequency range.

3 REVERB knob

Adjusts the amount of reverb (p. 47).

4 CHORUS knob

Adjusts the amount of chorus (p. 47).

5 MULTI EFFECTS

[CONTROL] knob

Adjusts the way that effects are applied (p. 53).

[ON/OFF]

Switches the multi-effects on/off (p. 53).

6 PART SWITCH/LEVEL

Turns each part's sound on and off (PART SWITCH), and adjusts the volume level for each part (PART LEVEL slider) (p. 45).

When [MIDI TX] is on, this controls each part for the external MIDI sound generator (p. 62).

7 KEYBOARD CONTROL

[ARPEGGIO]

Switches Arpeggiator on/off (p. 49).

[TRANSPOSE]

Sets the range of the keyboard to transposed (p. 46).

8 ONE TOUCH

[SPLIT]

Puts the keyboard in "Split mode," wherein you can use more than one tone by having different tones play in different parts of the keyboard (p. 43).

[LAYER]

Puts the keyboard in "Layer mode," in which the keyboard plays two tones simultaneously (p. 42).

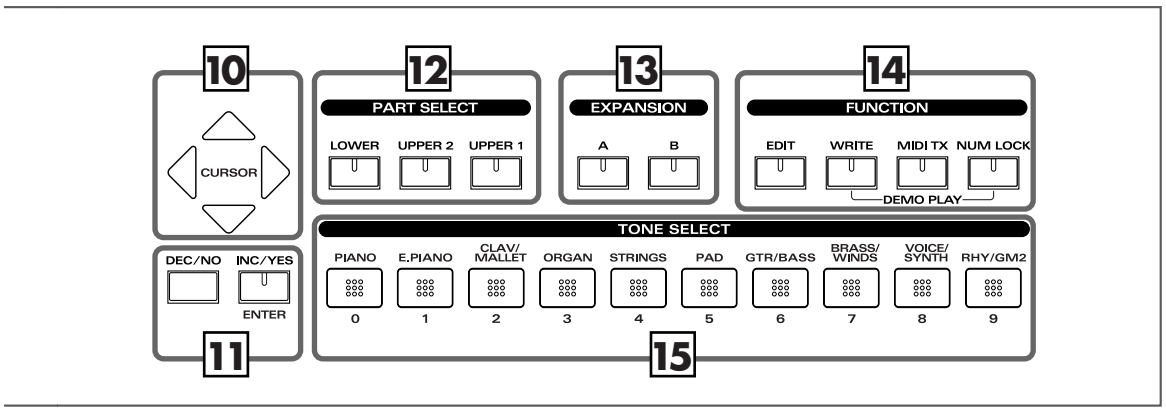
[PIANO]

Selects the optimum settings for piano performances (p. 35).

[SETUP]

Calls up the stored settings (Setup) (p. 54).

Additionally, pressing [PIANO] and [SETUP] simultaneously allows you to access more detailed piano performance settings (PIANO EDIT) (p. 66).



9 DISPLAY

This shows the Tone names and the values of various settings, etc (p. 32).

10 CURSOR [▲], [▼], [◀], [▶]

Press these to switch pages and to move the cursor (p. 33).

11 [DEC/NO], [INC/YES]/[ENTER]

This is used to modify values.

If you keep on holding down one button while pressing the other, the value change accelerates.

Use "ENTER" to finalize a value or execute an operation.

12 PART SELECT buttons

Selects the part for which the tone is to be selected (p. 44).

13 EXPANSION [A], [B]

This selects a sound from a wave expansion board, sold separately (p. 39).

14 FUNCTION

[EDIT]

Press this button when you wish to adjust various settings (p. 68).

[WRITE]

Stores the current settings to "Setup" (p. 56).

[MIDI TX]

Puts the RD-700 in control of the external MIDI sound generator (p. 59).

[NUM LOCK]

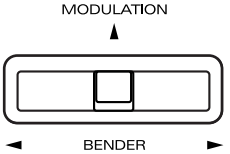
You can input numerical values with the TONE SELECT buttons when this button is lit (p. 37).

In addition, you can listen to the demo songs by simultaneously pressing this button and [WRITE] (DEMO PLAY) (p. 34).

15 TONE SELECT buttons

Pressed to select tones (p. 36).

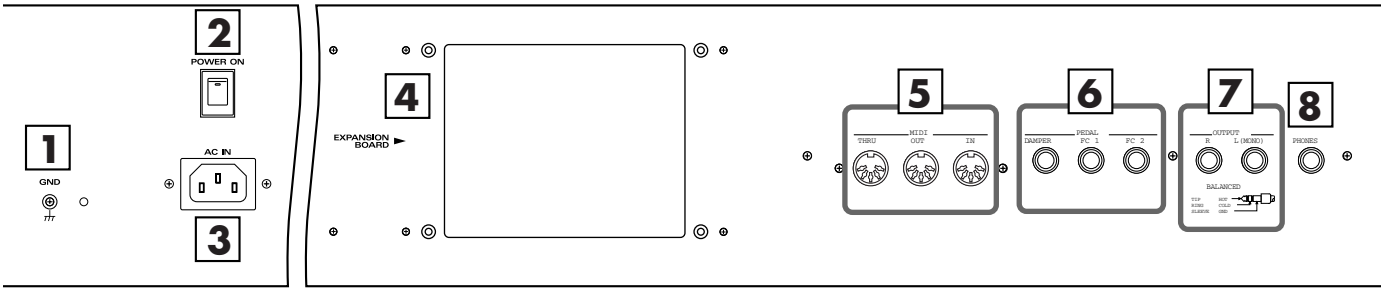
You can also input numerical values with these buttons when the [NUM LOCK] button is on. [NUM LOCK] turns on automatically in the Edit and other screens, enabling input of numerical values with the buttons.



Pitch Bend/Modulation Lever

This allows you to control pitch bend or apply vibrato (p. 48).

Rear Panel



1 GND Terminal

Connect using a grounded cable (optional) as conditions require.

In some cases, depending on the environment in which the unit is installed, the surface of the panel may sometimes feel rough and grainy. This is due to an infinitesimal electrical charge, which is absolutely harmless. However, if you are concerned about this, connect the ground terminal with an external ground. When the unit is grounded, a slight hum may occur, depending on the particulars of your installation. If you are unsure of the connection method, contact the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.

Unsuitable places for connection

- Water pipes (may result in shock or electrocution)
- Gas pipes (may result in fire or explosion)
- Telephone-line ground or lightning rod (may be dangerous in the event of lightning)

2 [POWER] Switch

Switch turns the power on/off (p. 24).

3 AC Inlet

Connect the included power cable to this inlet. (p. 22).

4 Wave Expansion Board Installation Slot

Remove the cover for installation of optional wave expansion boards (SRX Series) (p. 15).

5 MIDI Connectors (IN, OUT, THRU)

Used for connecting external MIDI devices and for transmission of MIDI messages (p. 22, p. 59, p. 95).

6 PEDAL Jacks (DAMPER, FC1, FC2)

Connecting the pedal switch (DP-6) provided with the RD-700 to the DAMPER jack allows you to use the switch as a damper pedal.

With an optional expression pedal (such as the EV-5 or other model) connected to the FC-1 or FC-2 jack, you can then assign a variety of functions to the pedal (p. 23, p. 73).

7 OUTPUT R/L (MONO) Connectors

Provide output of the audio signals. These are connected to an amp or other device. For monaural output use the L/MONO jack (p. 22).

These also feature balanced output.

8 PHONES Jack

A set of headphones can be connected to this jack (p. 22).

Even when headphones are connected, sound will still be output from the output jacks.

Getting Ready

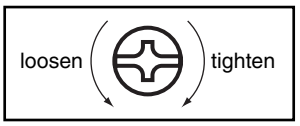
Installing the Wave Expansion Board

Up to two optional Wave Expansion Boards (SRX Series) can be installed in the RD-700.

Wave Expansion Boards store Wave data, Patches, and Rhythm Sets, and by equipping the RD-700 with these boards, you can greatly expand your sound palette.

Cautions When Installing an Wave Expansion Board

- To avoid the risk of damage to internal components that can be caused by static electricity, please carefully observe the following whenever you handle the board.
  - Before you touch the board, always first grasp a metal object (such as a water pipe), so you are sure that any static electricity you might have been carrying has been discharged.
  - When handling the board, grasp it only by its edges. Avoid touching any of the electronic components or connectors.
  - Save the bag in which the board was originally shipped, and put the board back into it whenever you need to store or transport it.
- Use a Philips screwdriver that is suitable for the size of the screw (a number 2 screwdriver). If an unsuitable screwdriver is used, the head of the screw may be stripped.
- To remove a screw, rotate the screwdriver counter-clockwise. To tighten a screw, rotate the screwdriver clockwise.



- Be careful that the screws you remove do not drop into the interior of the RD-700.
- Do not leave the rear panel cover removed. After installation of the Wave Expansion Boards is complete, be sure to replace the cover.
- Do not touch any of the printed circuit pathways or connection terminals.
- Be careful not to cut your hand on the edge of the installation bay.
- Never use excessive force when installing a circuit board. If it doesn't fit properly on the first attempt, remove the board and try again.
- When circuit board installation is complete, double-check your work.
- Always turn the unit off and unplug the power cord before attempting installation of the circuit board.
- Install only the specified circuit board(s) (SRX Series). Remove only the specified screws.

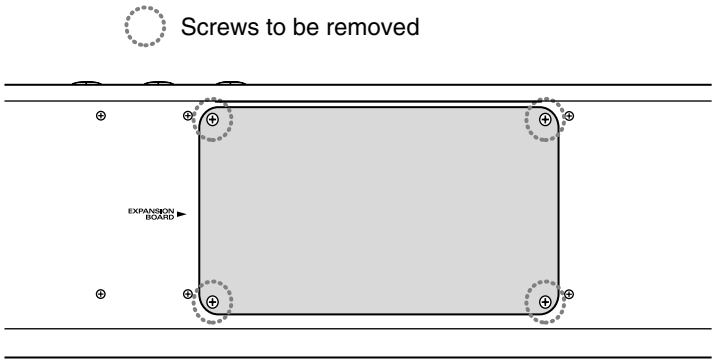
Install the Wave Expansion Boards after removing the rear panel cover.

There are two slots (A and B) into which a board can be installed. Specify which slot's board is to be used by pressing EXPANSION [A] or [B] on the front panel when using waves, tones, or Rhythm Sets from the wave expansion boards.

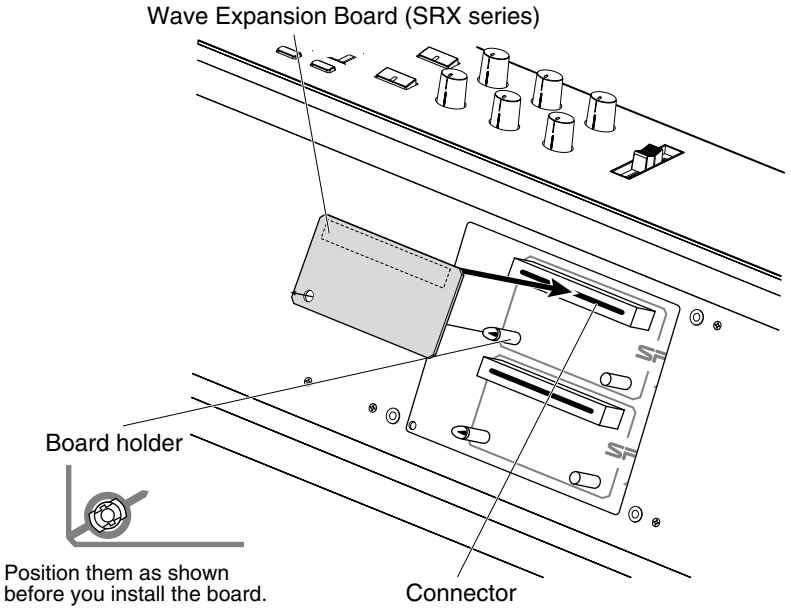
Installing SRX Series Boards

1 Before installing any Wave Expansion Board, turn off the power on the RD-700 and all devices connected to it.

2 Refer to the following illustration of the RD-700's rear panel, and remove the screws indicated. Then, remove the cover.



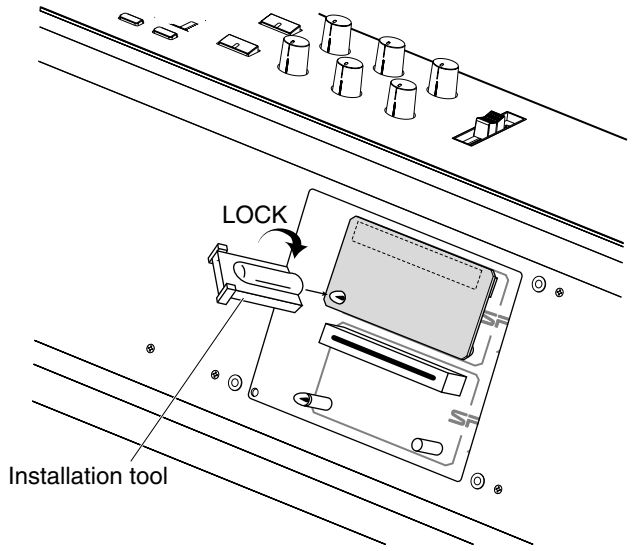
3 Insert the Wave Expansion Board connector into a connector for an SRX Series slot (SRX A or SRX B), while simultaneously inserting the board holders into the holes in the Wave Expansion Board.



NOTE

If the same type of Wave Expansion Board is installed in the SRX A slot and the SRX B slot, it will only be possible to select data from the Wave Expansion Board that was installed in the SRX A slot.

4 Use the Installation Tool supplied with the Wave Expansion Board to turn the holders in the LOCK direction, so the board will be fastened in place.



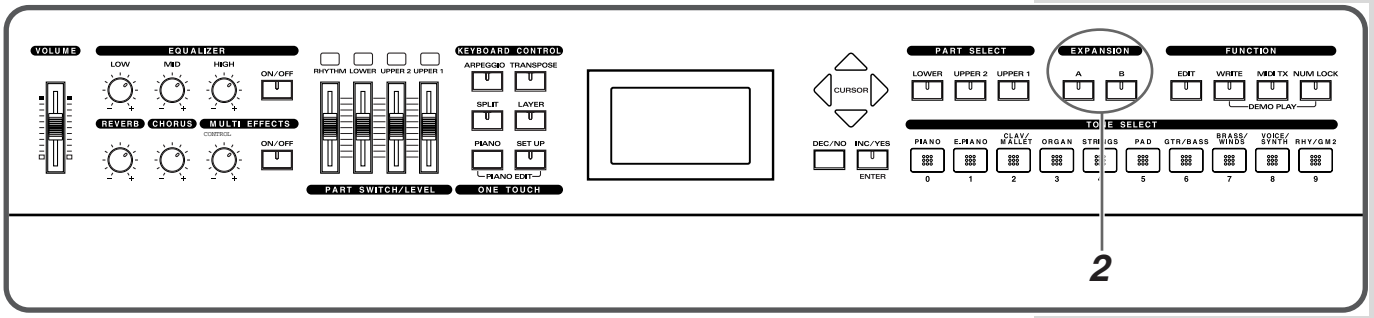
5 Use the screws that you removed in step 2 to fasten the cover back in place.

Checking the Installed Wave Expansion Boards

After installation of the Wave Expansion Boards has been completed, check to confirm that the installed boards are being recognized correctly.

MEMO

For instructions on selecting Wave Expansion Board Tones, refer to **"Selecting Wave Expansion Board Tones"**



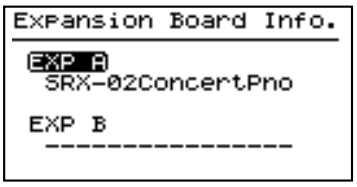
1

Turn on the power, as described in **"Turning On the Power"** (p. 24).

2

Hold down EXPANSION [A] or [B] for several seconds.

The name of the installed wave expansion board appears in the display.



The example here depicts what you would see if the SRX-02 "Concert Piano" Wave Expansion Board were installed in the SRX A slot.

By releasing the button, you go back to the previous screen.

NOTE

If "----------" appears next to the name of the slot in which the board was installed, it may be that the wave expansion board is not being recognized properly. Use the procedure in **"Turning Off the Power"** (p. 25) to turn the power off, then reinstall the wave expansion board correctly.

Installation de la carte d'extension Wave

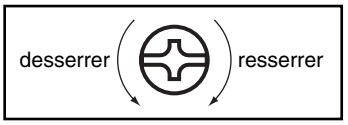
(French language for Canadian Safety Standard)

Vous pouvez installer jusqu'à 2 cartes d'extension optionnelles dans le RD-700.

Ces cartes d'extension mémorisant des données Wave, des morceaux et des ensembles rythmiques, elles vous permettront d'augmenter considérablement le timbre.

Precautions lors de l'installation de la carte d'extension Wave

- Veuillez suivre attentivement les instructions suivantes quand vous manipulez la carte afin d'éviter tout risque d'endommagement des pièces internes par l'électricité statique.
  - Toujours toucher un objet métallique relié à la terre (comme un tuyau par exemple) avant de manipuler la carte pour vous décharger de l'électricité statique que vous auriez pu accumuler.
  - Lorsque vous manipulez la carte, la tenir par les côtés. Évitez de toucher aux composants ou aux connecteurs.
  - Conservez le sachet d'origine dans lequel était la carte lors de l'envoi et remettez la carte dedans si vous devez la ranger ou la transporter.
- Utiliser un tournevis cruciforme correspondant à la taille de la vis (un tournevis numéro 2). En cas d'utilisation d'un tournevis inapproprié, la tête de la vis pourrait être endommagée.
- Pour enlever les vis, tourner le tournevis dans le sens contraire des aiguilles d'une montre. Pour resserrer, tourner dans le sens des aiguilles d'une montre.



- Veillez à ne pas laisser tomber de vis dans le châssis du RD-700.
- Ne pas laisser la plaque arrière détachée. Après avoir installé la ou les carte(s) d'extension, bien remettre la plaque en place.
- Ne pas toucher aux circuits imprimés ou aux connecteurs.
- Veillez à ne pas vous couper les doitgs sur le bord de l'ouverture d'installation.
- Ne jamais forcer lors de l'installation de la carte de circuits imprimés. Si la carte s'ajuste mal au premier essai, enlevez la carte et recommencez l'installation.
- Quand l'installation de la carte de circuits imprimés est terminée, revérifiez si tout est bien installé.
- Toujours éteindre et débrancher l'appareil avant de commencer l'installation de la carte.
- N'installez que les cartes de circuits imprimes spécifiées (SRX Series). Enlevez seulement les vis indiquées.

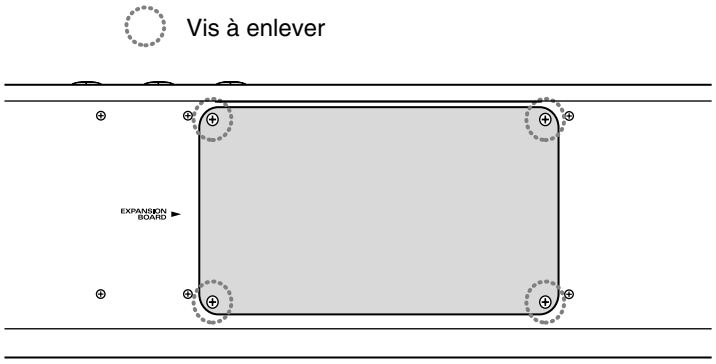
Installer les cartes d'extension après avoir enlevé la plaque arrière.

French language
for Canadian Safety Standard

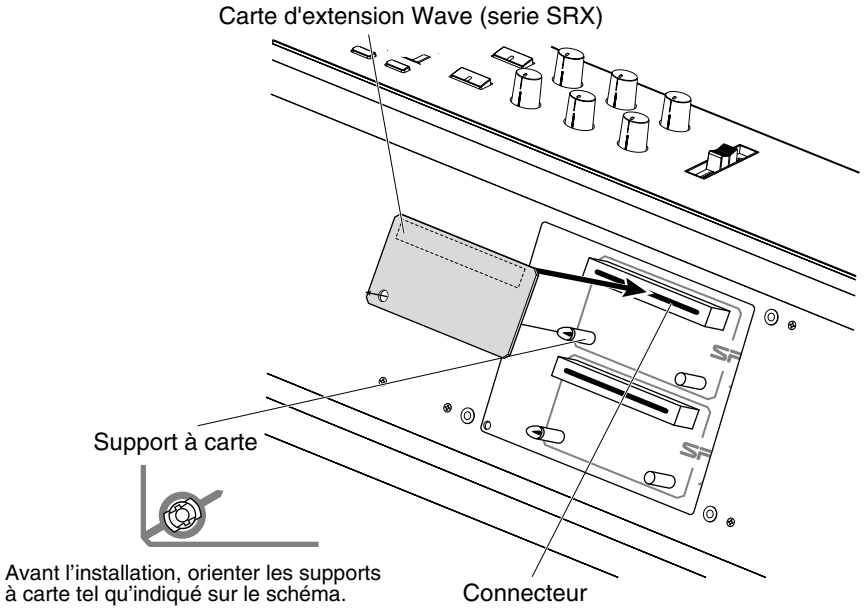
Installer les cartes de série SRX

1 Avant d'installer une carte d'extension Wave, éteindre tous les appareils reliés au RD-700.

2 Détacher la plaque arrière en enlevant les vis indiquées sur le schéma suivant.



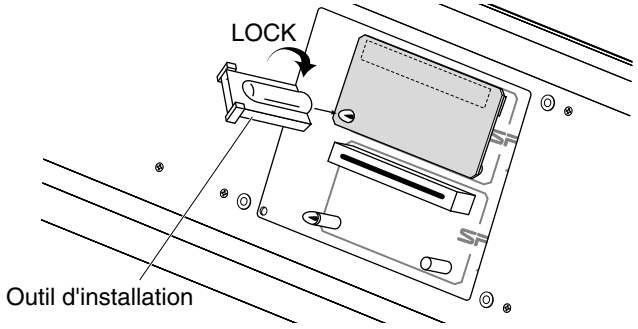
3 Insérer le connecteur de la carte dans un des créneaux pour la série SRX (SRX A, SRX B) tout en enfonçant les supports à carte dans les trous de celle-ci.



NOTE

Si la même sorte de carte d'extension Wave est installée dans les créneaux SRX A et SRX B, il ne sera possible de sélectionner que les données de la carte d'extension Wave installée dans le créneau SRX A.

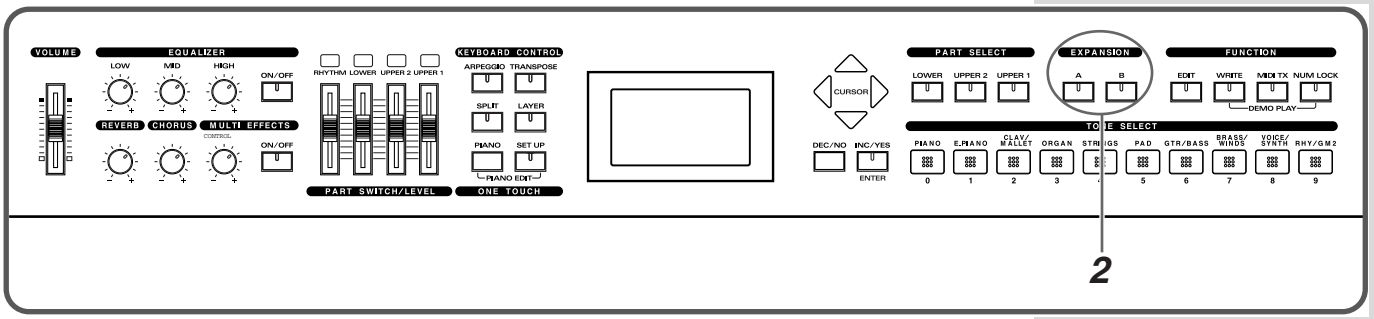
4 Pour tourner les supports en position LOCK (verrouillé), utilisez l'outil d'installation de la carte d'extension fournie à cet effet. De cette façon, la carte sera bien fixée à sa place.



5 Reposez le couvercle en remettant les vis enlevées (comme spécifié) à l'étape 2.

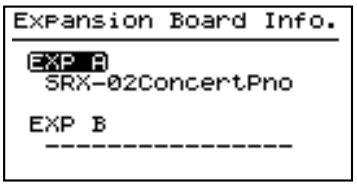
Vérification des cartes d'extension audio aprés installation

Lorsque l'installation des cartes d'extension audio est terminée, procéder à une vérification pour s'assurer que l'ordinateur les identifie correctement.



1 Mettre sous tension de la façon décrite sous **"Turning On the Power"** (p. 24).

2 Tenez EXPANSION [A] ou [B] enfoncé pendant plusieurs secondes.



L'exemple montre ce qui serait affiché si la carte d'extension audio SRX-02 "Concert Piano"était installée dans la fente SRX A.

Lorsque vous le relâcherez, vous serez ramené à l'écran précédent.

NOTE

Si "----------" est affiché à côté du nom de la fente dans laquelle la carte est installée, il est possible que la carte d'extension audio installée ne soit pas reconnue correctement. Mettre hors tension de la façon décrite sous **"Turning Off the Power"** (p. 25) et réinstaller correctement la carte d'extension audio.

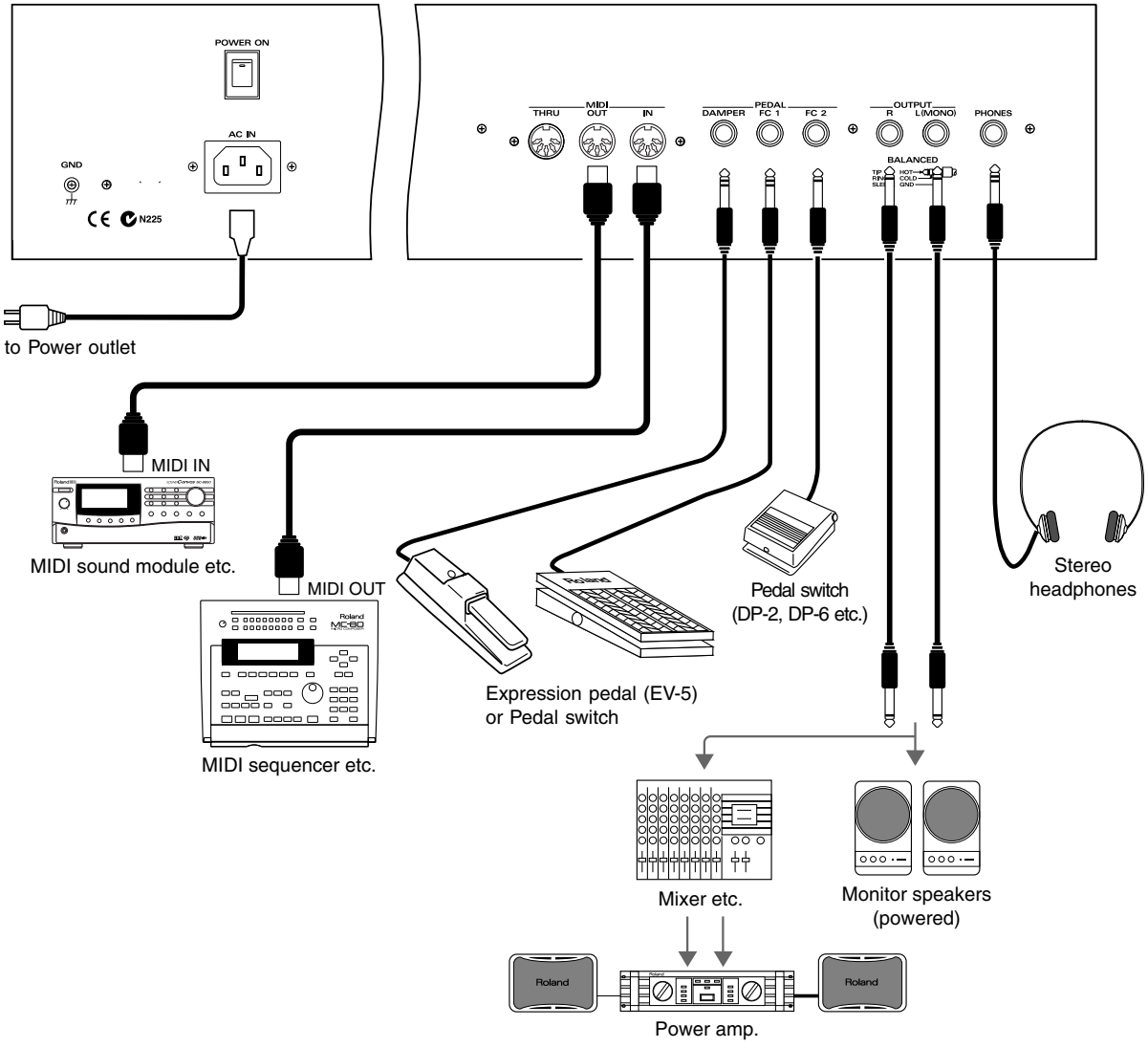
Connecting the RD-700 to External Equipment

The RD-700 is not equipped with an amplifier or speakers. In order to produce sound, you need to hook up audio equipment such as a monitor speaker or a stereo set, or use headphones.

* *Audio cables, MIDI cables, headphones, and expression pedals are not included. Consult your Roland dealer if you need to purchase accessories such as these.*

NOTE

To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.



1

Before you begin making connections, confirm the following.

Is the volume level of the RD-700 or connected amp turned all the way down?

Is the power to the RD-700 or connected amp turned off?

2 Connect supplied AC power cable to the RD-700, and plug the other end into an AC power outlet.

3 Connect the RD-700 and the external device.

Use audio cables to connect audio equipment, such as an amp or speakers. Use MIDI cables to connect MIDI devices.

If you are using headphones, plug them into the PHONES jack.

Connect pedal switches or expression pedals as necessary.

Connecting Pedals

Connect the pedal included with the RD-700 to one of the Pedal jacks.

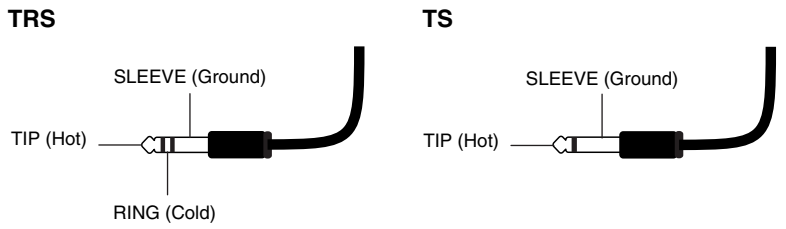
When connected to the Damper jack, the pedal can be used as a damper pedal.

Connecting the pedal to the FC-1 or FC-2 jack allows you to assign a variety of functions to the pedal (p. 73).

About the Output Jacks

The RD-700's output jacks are capable of use with either balanced or unbalanced output.

To use balanced output, use a cable with a balanced (TRS type) phone plug. To use unbalance output, use a cable with an unbalanced (TS type) phone plug.



NOTE

Use Stereo headphones.

NOTE

Use only the specified expression pedal (EV-5; sold separately). By connecting any other expression pedal, you risk causing malfunction and/or damage to the unit.

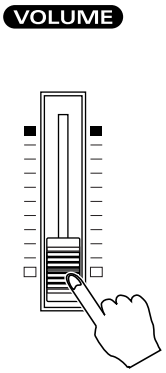
Turning the Power On and Off

Once the connections have been completed, turn on power to your various devices in the order specified. By turning on devices in the wrong order, you risk causing malfunction and/or damage to speakers and other devices.

Turning On the Power

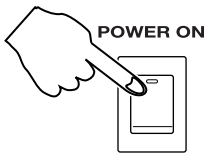
1 Before you switch on the power, turn the volume down all the way by rotating the VOLUME Slider.

Also completely turn down the volume of any connected audio device and other equipment.



2 Press the upper portion of the [POWER] switch to turn on the power.

The unit is powered up, and the display's backlighting comes on.



3 Turn on the power to connected external devices.

4 Adjust the volume of the connected external device.

5 Adjust the RD-700's volume to obtain the proper volume level.

NOTE

To prevent incorrect functioning of the Pitch Bend Lever (p. 48), refrain from touching the lever while the power to the RD-700 is turned on.

NOTE

This unit is equipped with a protection circuit. A brief interval (a few seconds) after power up is required before the unit will operate normally.

Turning Off the Power

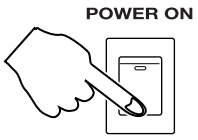
1. Before you switch on the power, turn the volume down all the way by rotating the VOLUME Slider.

   Also completely turn down the volume of any connected audio device and other equipment.

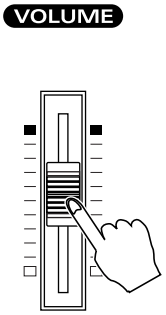
2. Turn off the power to connected external devices.

3. Press the lower portion of the [POWER] switch on the back of the RD-700.

   The power is switched off.



Adjusting the Volume



1. Adjust the volume using the VOLUME slider.

   Move the slider up to increase the volume, or down to lower it.

   Also adjust the volume of the connected device to an appropriate level.

Restoring the Factory Settings (Factory Reset)

When using the RD-700 for the first time, start by returning the settings to their factory defaults so that the RD-700 operates as described in the procedures in the owner's manual.

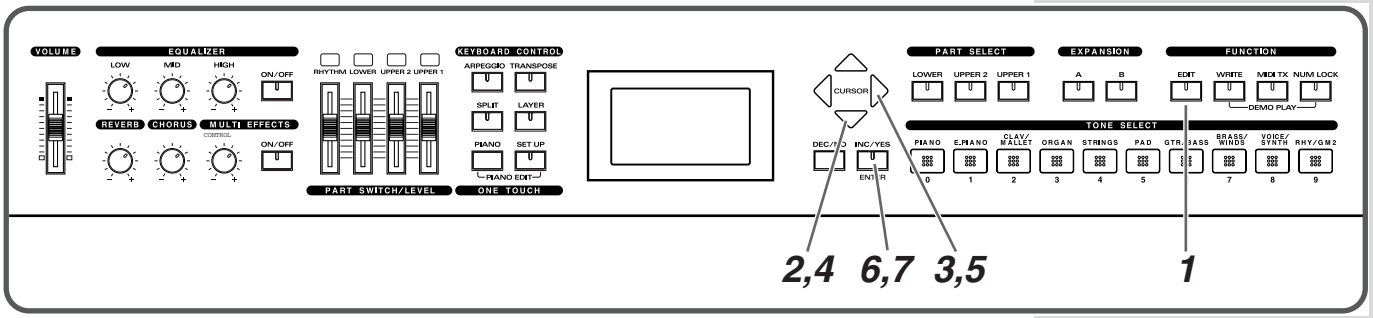
NOTE

Executing this operation deletes the Setup settings (p. 54). If you want to keep any internally stored content, use the "Bulk Dump (Bulk Dump SETUP)" procedure to save the data to an external sequencer (p. 92).

Notes

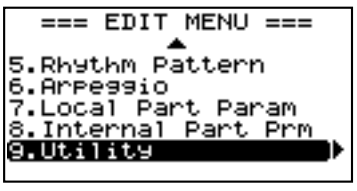
Never turn off the power during Factory Reset (while "Now, Executing" appears in the display).

Turning off the power while Factory Reset is in progress may result in corrupted internal data and may prevent the power from being turned on again. If you have confirmed that the internal data has been lost, or if a similar problem exists, consult the retailer from whom you purchased the instrument, or the nearest Roland Service Center. Note, however, that Roland assumes no liability, including compensation, for consequences arising from any loss of data.



1 Press [EDIT], getting the indicator to light.

The Edit Menu screen appears.



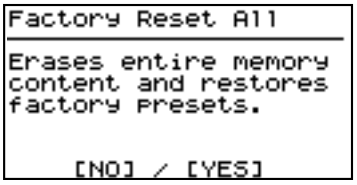
2 Press CURSOR [▼] to select "9.Utility."

3 Press CURSOR [▶] to display the Edit screen.

4 Press CURSOR [▼] to select "Factory Reset All."

5 Press CURSOR [▶].

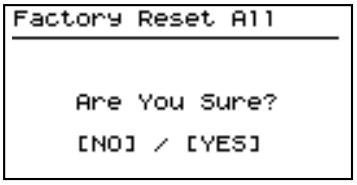
A screen like the one shown below appears.



To cancel the Factory Reset, press [DEC/NO].

6 Press [INC/YES].

The confirmation message appears.



To cancel the Factory Reset, press [DEC/NO].

7 Press [INC/YES] once again to start the Factory Reset operation.

During the execution, "Now, Executing" appears in the display.

After the Factory Reset operation is finished, the display will indicate "COMPLETED" and the Tone screen will appear.

You can also restore only part of the setting to their factory status. Refer to **"Restoring the settings to the factory condition (Factory Reset)"** (p. 94).

MEMO

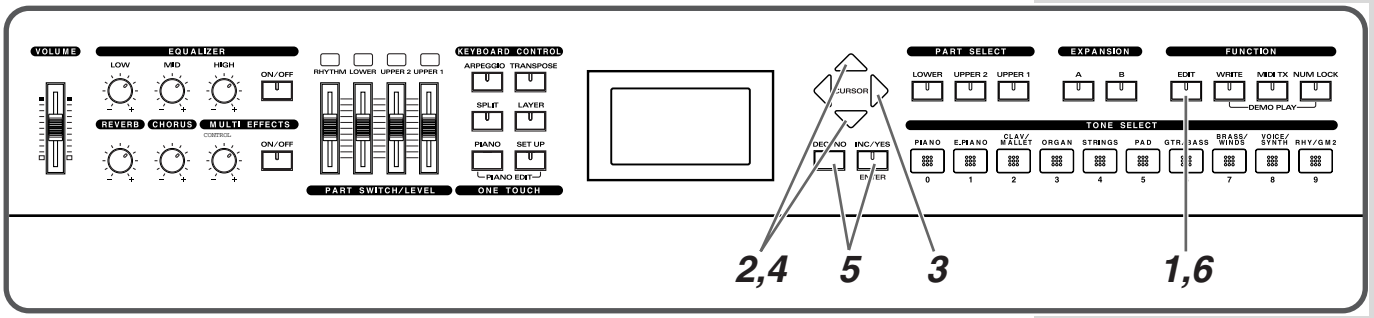
After performing a Factory Reset, you may need to re-adjust the display contrast. When this occur, adjust depth of the display (p. 28).

Adjusting the Display Contrast (LCD Contrast)

The characters in the display may be difficult to view immediately after turning on the power or after extended use; this may also be because of where and how the display is situated. Follow the steps below to adjust the display's contrast.

MEMO

The LCD CONTRAST setting affects the RD-700 as a whole (i.e., is a system setting). This setting remains stored in memory even while the power is off.



1 Press [EDIT], getting the indicator to light.

The Edit Menu screen appears.

```
=== EDIT MENU ===
0.System
1.Key Touch
2.Control/EQ
3.MFX/Reverb/Chorus
4.Tone Edit
```

2 Press CURSOR [▲] to select "0.System."

3 Press CURSOR [▶] to display the Edit screen.

```
EDIT [System]      1◀▶
Master Tune:   440.0Hz
Master Volume:     127
EQ Control:      SETUP
LCD Contrast:        5
Tone Remain:        ON
Clock Source:      INT
```

4 Press CURSOR [▲] or [▼] to move the cursor to the "LCD Contrast" parameter.

5 Press [INC/YES] or [DEC/NO] to select the value (1–10).

The brightness of the display changes as the value is changed. Adjust the contrast so that the display is easy to view.

6 Press [EDIT] to make the indicator go dark.

You are returned to the Tone screen.

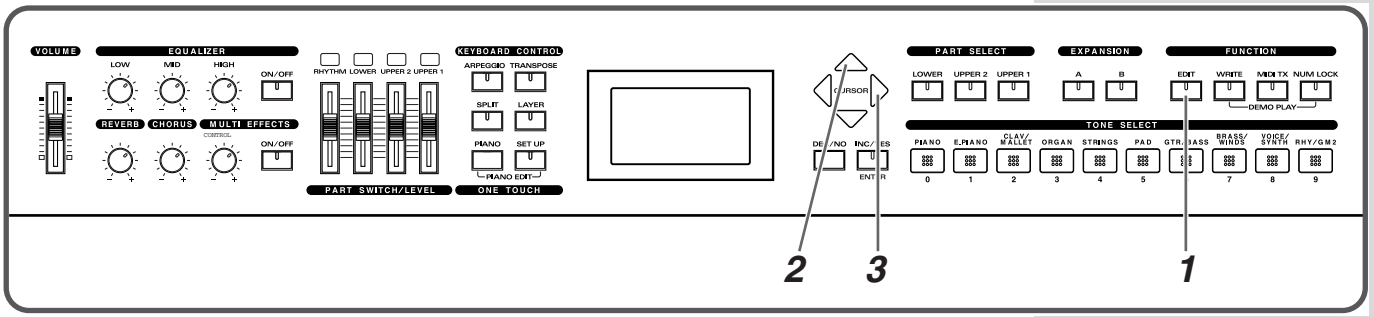
Tuning to Other Instruments' Pitches (Master Tune)

For a cleaner ensemble sound while performing with one or more other instruments, ensure that each instrument's basic pitch is in tune with that of the other instruments. In general, the tuning of an instrument is indicated by the pitch in Hertz (Hz) of the middle "A" note.

This matching of other instruments' basic reference pitches is called "tuning."

MEMO

The Master Tune setting is a system setting that is applied to the entire RD-700 (i.e., is a system setting), This setting remains stored in memory even while the power is off.

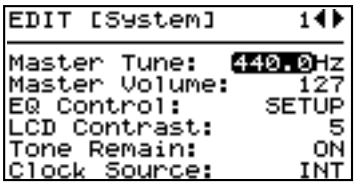


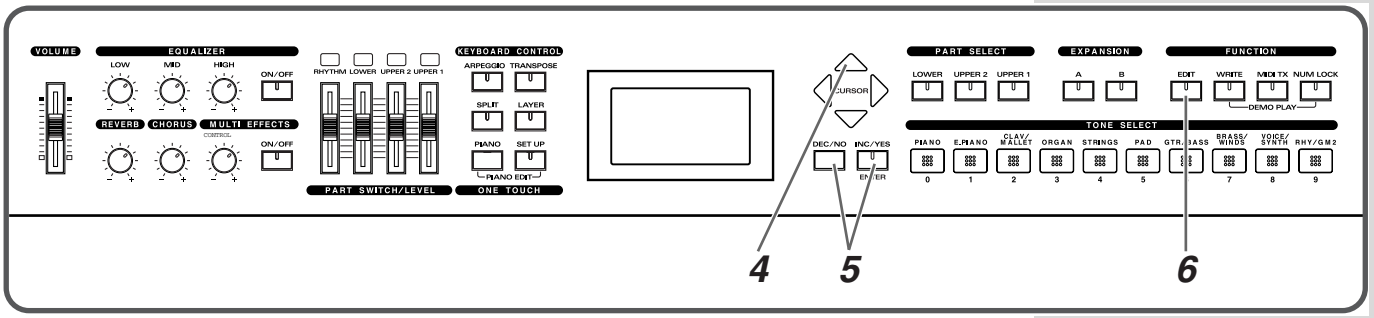
1 Press [EDIT], getting the indicator to light.

The Edit Menu screen appears.

2 Press CURSOR [▲] to select "0.System."

3 Press CURSOR [▶] to display the Edit screen.





4 Press CURSOR [▲] to move the cursor to the "Master Tune" parameter.

5 Press [INC/YES] or [DEC/NO] to select the value (415.3–440.0–466.2).

6 Press [EDIT] to make the indicator go dark.

You are returned to the Tone screen.

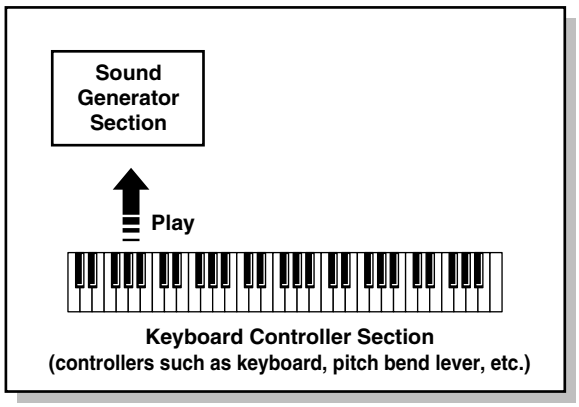
MEMO

For faster value increases, keep [INC/YES] pressed down and press [DEC/NO]. For decreasing value faster, keep [DEC/NO] pressed down and press [INC/YES].

Overview of the RD-700

Basic Organization of the RD-700

The RD-700 can be divided into two sections: a keyboard controller section and a sound generator section. The two sections are connected internally by means of MIDI.



Keyboard Controller Section

This section includes the keyboard, the Pitch Bend/ Modulation Lever, the panel knobs, and any pedal connected to the rear panel. Actions such as pressing and releasing of keys on the keyboard, depressing a pedal, and so forth, are converted to MIDI messages and sent to the sound generator section, or to an external MIDI device.

Sound Generator Section

The sound generator section produces the sound. Here, MIDI messages received from the keyboard controller section or external MIDI device are converted to musical signals, which are then output as analog signals from the OUTPUT and PHONES jacks.

Units of Sound

When using the RD-700, you will notice that a variety of different categories come into play when working with sounds. What follows is a simple explanation of each sound category.

Tone

The individual sounds used when playing the RD-700 are referred to as "Tones." The RD-700 provides 468 types of Tones. Tones are assigned to each part.

The Tones also include various groups of percussion instrument assembled into "Rhythm Sets." Each key (note number) of a Rhythm Set will produce a different percussion instrument.

Part

A sound generator of this type which can control multiple sounds using one device is referred to as a multitimbral sound generator. The RD-700 contains a multitimbral sound generator capable of playing sixteen Tones simultaneously.

"Parts" are where Tones that are created when the RD-700 is used as a sound generator are assigned. Since different Tones can be assigned to each of the Parts and controlled individually, you can have multiple Tones play simultaneously (layer), divide the keyboard into separate ranges and have different Tones sound in the different parts (Split), and enjoy playing ensemble performances.

The sixteen Parts played by the RD-700's internal sound generator are referred to as "Internal Parts."

Local Parts and MIDI TX Parts

The RD-700 features three Parts (UPPER1, UPPER2, and LOWER) that you can use for freely controlling the Internal Parts with the RD-700's buttons and keyboard. These three Parts that are used for controlling the Internal Parts are collectively known as the "Local Parts." Three of the sixteen Internal Parts are assigned to the Local Parts for control (the RHYTHM Part is fixed at Part 10).

Furthermore, you can freely control external MIDI sound generators with the RD-700 in the same manner as with the Local Parts. You can likewise control the external MIDI sound generator with the three Parts (UPPER1, UPPER2, and LOWER), with this group of three Parts being referred to as the "MIDI TX (Transmit) Parts." The external MIDI sound generator is assigned to these three Parts for control (the RHYTHM Part can also be partially set).

Basic Operation of the RD-700

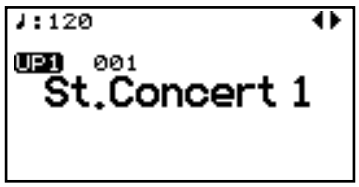
Main Screens

The Tone Screen (Basic Screen)

The names of the Tones currently selected for the Local Parts are displayed. This is the screen that is ordinarily displayed.

When ONE TOUCH [PIANO] is pressed, setting the RD-700 to the optimal status for piano performances, this screen is displayed.

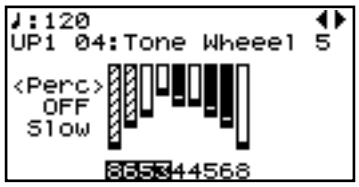
You can change the Local Part UPPER1, UPPER2, and LOWER Tones and tempo.



The Tone Wheel Screen

In the Tone screen, when any ORGAN Tone "Tone Wheel 1–10" is selected for any of the Local Parts, this screen is displayed when CURSOR [◀] is pressed. The mode when this screen is displayed is called "Tone Wheel mode," and while in this mode you can simulate the creation of sounds using an organ's harmonic bars.

Pressing CURSOR [▶] when this screen is displayed returns you to the Tone screen.

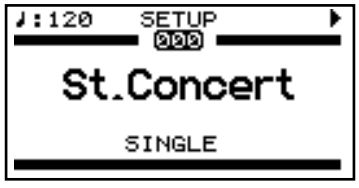


The Setup Screen

The currently selected Setup is displayed.

Pressing CURSOR [◀] when the Tone screen or Tone Wheel Screen is displayed switches the RD-700 to this screen. You can also have this screen displayed by pressing [SETUP]. You can change the Setups.

Pressing CURSOR [▶] when this screen is displayed returns you to the Tone screen or Tone Wheel Screen.

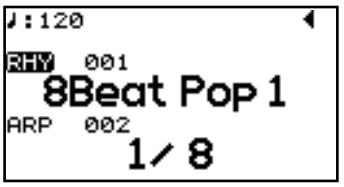


The Rhythm/Arpeggio Screen

Pressing CURSOR [▶] when the Tone screen is displayed switches the RD-700 to this screen.

You can change Rhythm patterns, Arpeggio patterns, and the tempo.

Pressing CURSOR [◀] when this screen is displayed returns you to the Tone screen.



Special Indications

When the contents of a Setup (p. 54) are changed, an asterisk (a "*" mark) appears on the right of the Setup number. If you want to use the changed content as a new Setup, save the settings to a Setup (p. 56).

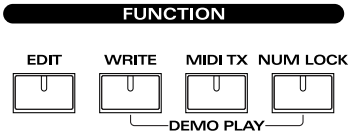
With Clock Source (p. 70) set to MIDI, the tempo indication changes to "M:" for each screen.
The tempo can be changed with the external MIDI devices when this mark is indicated.

With EQ Control (p. 70) set to SYSTEM, this mark appears on the screen.

Equalizer settings do not change when Setups are switched while this mark is indicated.

With Rhythm Type (p. 82) set to "2," this mark appears on the screen.

About the Function Buttons



[EDIT]

By pressing [EDIT] to make the indicator light, you can enter "Edit mode." In Edit mode you can make detailed settings for various functions.

You can exit Edit mode by pressing [EDIT], extinguishing its indicator. When exiting from Edit mode, [EDIT]'s indicator goes out.

[WRITE]

Stores the current settings to "Setup"

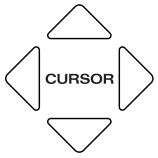
[MIDI TX]

When [MIDI TX] is pressed, the button's indicator lights up, and the RD-700 switches to the mode enabling it to control an external MIDI sound generator. The status of this button determines whether the RD-700's buttons are used to control the Local Parts ([MIDI TX] off), or to control the MIDI TX Parts ([MIDI TX] on).
In addition, you can make detailed settings for the MIDI messages to be transmitted to the external sound generator.

[NUM LOCK]

When [NUM LOCK] is pressed, the button's indicator lights up, enabling input of numerical values using the TONE SELECT buttons. The button indicators automatically light according to the values set.

About the CURSOR Buttons

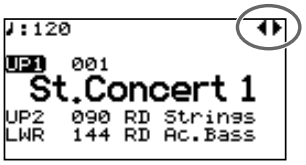


The CURSOR buttons are used for switching screens, and for moving to an item whose setting you want to change (by moving the cursor).

Moving Between Display Pages

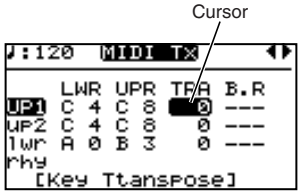
When arrow symbols ("◀" and "▶") appear at the upper right of the display screen, it indicates that there are additional pages in the directions shown by the arrows.

You can switch screens with CURSOR [◀] and [▶].



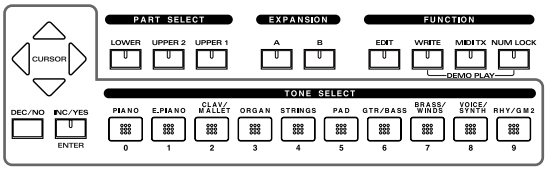
Navigating Among Items To Be Set (CURSOR)

When more than one parameter is present in a screen, the name and value of the parameter to be changed is shown with a box around it. This box is referred to as the "cursor." The cursor is moved with the CURSOR buttons.



Additionally, when multiple parameters are presented horizontally in a row, as shown in the MIDI TX screen, you can get the cursor to move more rapidly by holding down the CURSOR button that points in the direction you want the cursor to move while you also press the CURSOR button that points in the opposite direction.

Changing the Settings Values



When changing settings values, you can use [DEC/NO] and [INC/YES], or the TONE SELECT buttons (numeric keys).

[DEC/NO], [INC/YES]

Pressing [INC/YES] increases the value, and [DEC/NO] decreases it. Keep the button pressed for continuous adjustment. For faster value increases, keep [INC/YES] pressed down and press [DEC/NO]. For decreasing value faster, keep [DEC/NO] pressed down and press [INC/YES].

TONE SELECT Buttons (Numeric Keys)

When [NUM LOCK] is on (lit), numerical values can be input directly using the TONE SELECT buttons, which then serve as [0]–[9] numeric keys. When you enter the number, the value will blink. This indicates that the value has not yet been finalized. To finalize the value press [ENTER].

With some parameters, [NUM LOCK] may come on automatically, allowing you to input numerical values directly with the TONE SELECT buttons.

MEMO

The negative (-) or positive (+) sign of numerical values are switched with [DEC/NO] or [INC/YES].

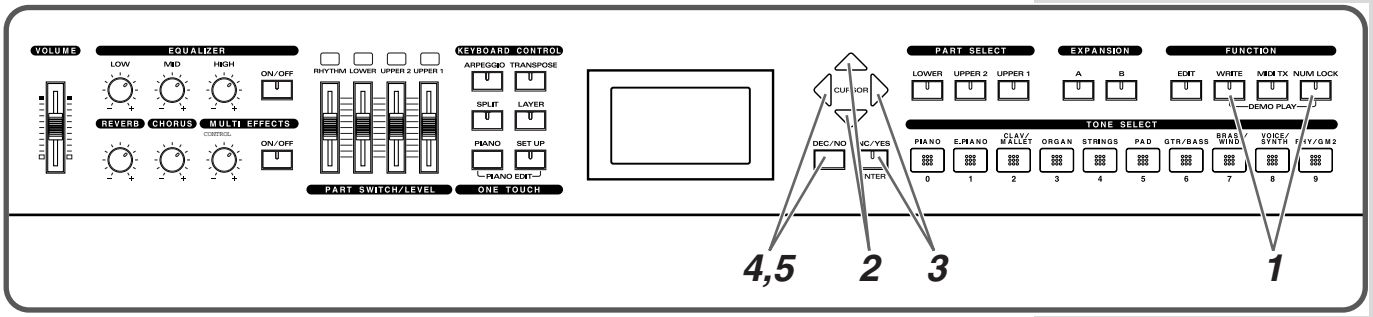
Listening to the Demo (DEMO PLAY)

Here's how to listen to these songs.
The RD-700 features the internal demo songs that exhibit the special capabilities of the instrument.

No.	Song Name	Composer/Copyright	
01.	RD Party	Scott Wilkie	© 2001 Roland Corporation
02.	Retro-Active	Igor Len	© 2001 Roland Corporation
03.	Escape	Scott Tibbs	© 2001 Roland Corporation
04.	High-End Speak	Scott Tibbs	© 2001 Roland Corporation
05.	No me digas	Scott Tibbs	© 2001 Roland Corporation
06.	Pastorale	Igor Len	© 2001 Roland Corporation

NOTE

All rights reserved. Unauthorized use of this material for purposes other than private, personal enjoyment is a violation of applicable laws.



1

Hold down [NUM LOCK] and press [WRITE].
The Demo screen appears.

NOTE

No data for the music that is played will be output from the MIDI OUT connector.

2

Press CURSOR [▲] / [▼] to select the song that you wish to hear.
When CHAIN PLAY is selected, the entire group of songs is played back repeatedly.

3

Press CURSOR [▶] or [INC/YES] to start playback of the demo song.
When the end of the selected the song is reached, playback then repeats from the beginning of the song.

NOTE

While the demo songs are playing back, playing the keyboard will not produce sound.

4

Press CURSOR [◀] or [DEC/NO] to stop a song during playback.

MEMO

When ONE TOUCH [PIANO] or [SETUP] is pressed, the song is stopped, and the Tone screen or Setup screen appears in the display.

5

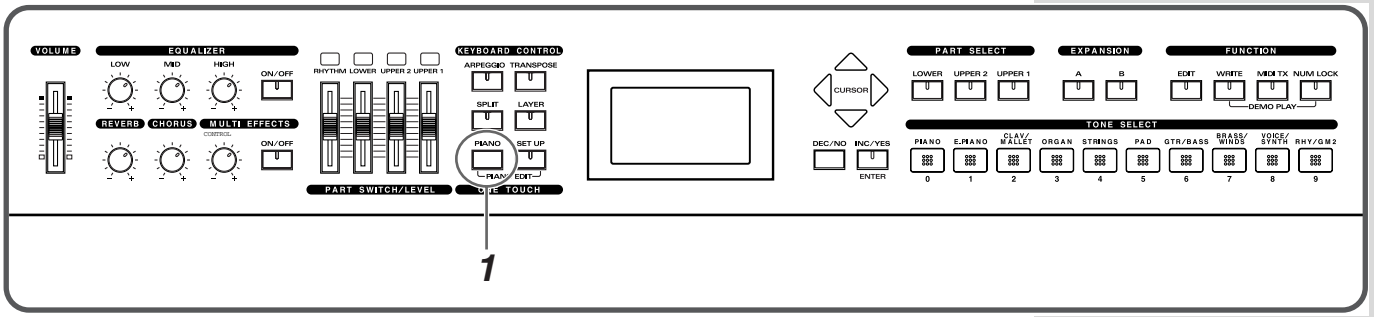
Press [DEC/NO] while the song is stopped to finish with the Demo screen.
You are returned to the Tone screen.

Performing with the Keyboard

Piano Performances (One Touch [Piano])

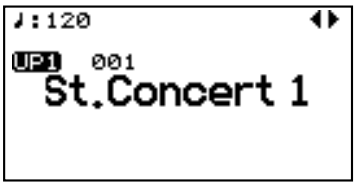
Now, try performing with the piano.

With the RD-700, you can call up the optimal settings for piano performances with the press of a single button.



1

Press ONE TOUCH [PIANO].



The performance setting (Single Mode ➔ p. 41) is selected as the piano tone for the entire keyboard.

With the RD-700, you can also make more detailed settings to make the sound even better match your favorite piano performances. Please refer to each as needed.

- Fine Adjustment of Piano Tones (Piano Edit) ➔ p. 66
- Fine Adjustment of the Piano Touch Sense ➔ p. 71

MEMO

When ONE TOUCH [PIANO] is pressed, all settings other than the Piano Edit settings (p. 66) are switched to their status at the time the RD-700's power was turned on Store any arrangements of settings that you want to keep in Setup (p. 56).

Performing with a Variety of Tones

The RD-700 provides 468 types of Tones.

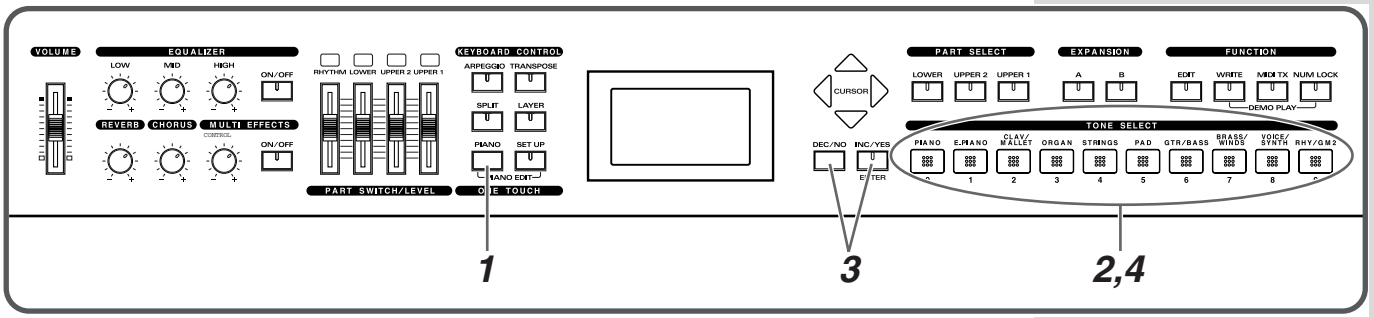
Each one of these individual sounds is called a tone.

Tones are assigned to the TONE SELECT buttons according to the tone category selected.

Try selecting and performing with a number of different tones.

MEMO

For more on the RD-700's internal tones, refer to the **"Tone List"** (p. 135).



1

Press ONE TOUCH [PIANO].

This selects a single tone to be played over the entire keyboard.

2

Press any of the TONE SELECT buttons to select the tone category.

3

Press [INC/YES] or [DEC/NO] to select the tone.

The TONE SELECT button for the selected category flashes.

4

Either press the flashing TONE SELECT button or play the keyboard.

The TONE SELECT button stops flashing and remains lit, and the selected tone is set.

Play the keyboard, and you will hear the selected tone.

The next time you choose this TONE SELECT button, the tone you're selected here is played.

MEMO

When changing tones in Layer mode (p. 42) or Split mode (p. 43), select the part for which the tone is to be changed with the PART SELECT buttons, without pressing the ONE TOUCH [PIANO] button. For details, refer to **"Changing Tones in Layer and Split Mode"** (p. 44).

NOTE

If [NUM LOCK] is turned on, the Tone Category cannot be selected with TONE SELECT button. For details, refer to p. 37.

NOTE

Tones selected with [RHY/GM2] are registered in the following order: "Rhythm Sets," "GM2 Rhythm Sets," and "GM2 Tones." Refer to the **"Tone List"** (p. 135).

Specifying the Tone Number to Select a Tone ([NUM LOCK])

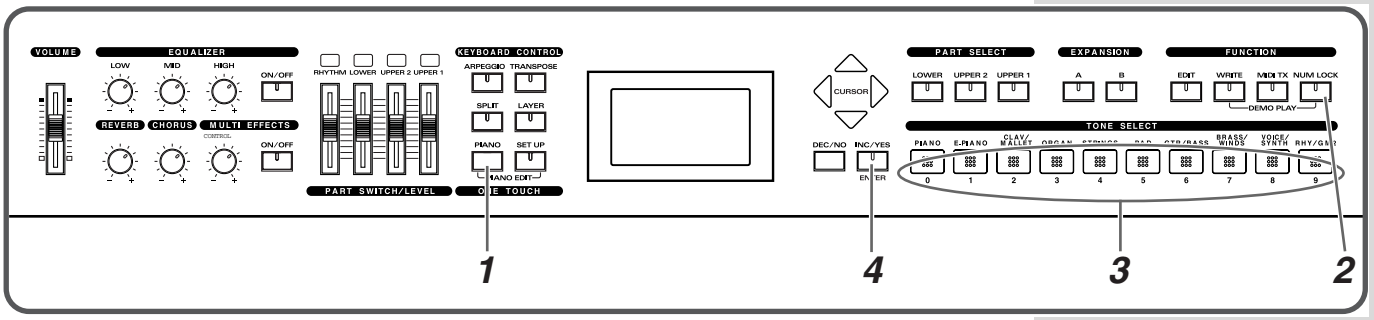
Each individual tone has a different tone number.

You can select tones with the TONE SELECT buttons by inputting numerals with these buttons to specify tone numbers.

Turn [NUM LOCK] on when inputting numerals with the TONE SELECT buttons.

MEMO

For more on the RD-700's internal tones, refer to the **"Tone List"** (p. 135).



1

Press ONE TOUCH [PIANO].

This selects a single tone to be played over the entire keyboard.

2

Press [NUM LOCK] to make the indicator light.

This enables input of numerals with the TONE SELECT buttons.

The numerical value that can be entered with each button is indicated beneath the buttons.

3

Enter the tone number with the TONE SELECT buttons.

The screen Tone name flashes.

4

Press [ENTER].

The tone is set.

Play the keyboard, and you will hear the selected tone.

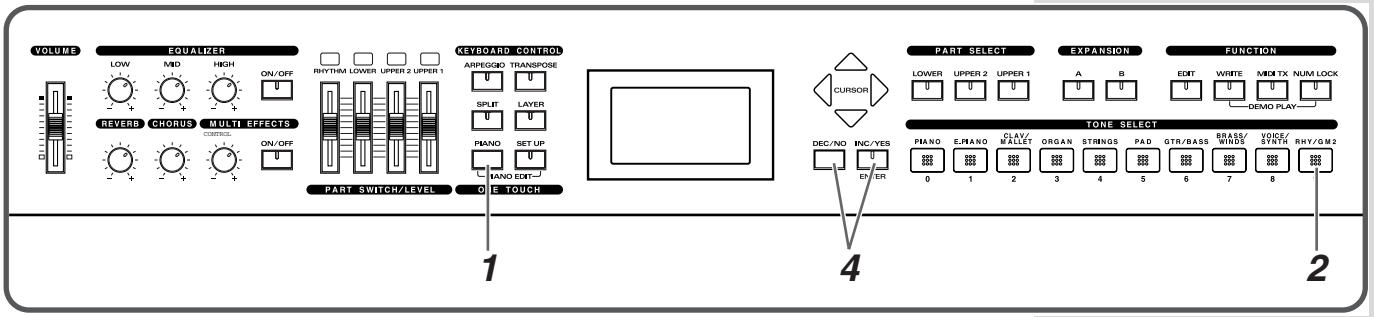
When [NUM LOCK] is turned off, the TONE SELECT buttons included in the selected Tone numbers lit.

MEMO

When changing tones in Layer mode (p. 42) or Split mode (p. 43), select the part for which the tone is to be changed with the PART SELECT buttons, without pressing the ONE TOUCH [PIANO] button. For details, refer to **"Changing Tones in Layer and Split Mode"** (p. 44).

Playing a Rhythm Set

Among the tones that can be selected with the TONE SELECT buttons are Rhythm Sets, which are collections of a variety of percussion instrument sounds and special sound effects. Here's how to select a Rhythm Set and play percussion sounds.



1

Press ONE TOUCH [PIANO].

This selects a single tone to be played over the entire keyboard.

2

Press TONE SELECT [RHY/GM2].

If [NUM LOCK] is turned on at this time, the Rhythm Set Category cannot be selected. Turn [NUM LOCK] off.

3

Press different keys to play different percussion instruments.

4

To select a different Rhythm Set, press [INC/YES] or [DEC/NO].

MEMO

Tones selected with [RHY/GM2] are registered in the following order: "Rhythm Sets," "GM2 Rhythm Sets," and "GM2 Tones." Refer to the **"Tone List"** (p. 135).

MEMO

The combination of sounds assigned to the keyboard varies according to the Rhythm set. Refer to **"Rhythm Set List"** (p. 138).

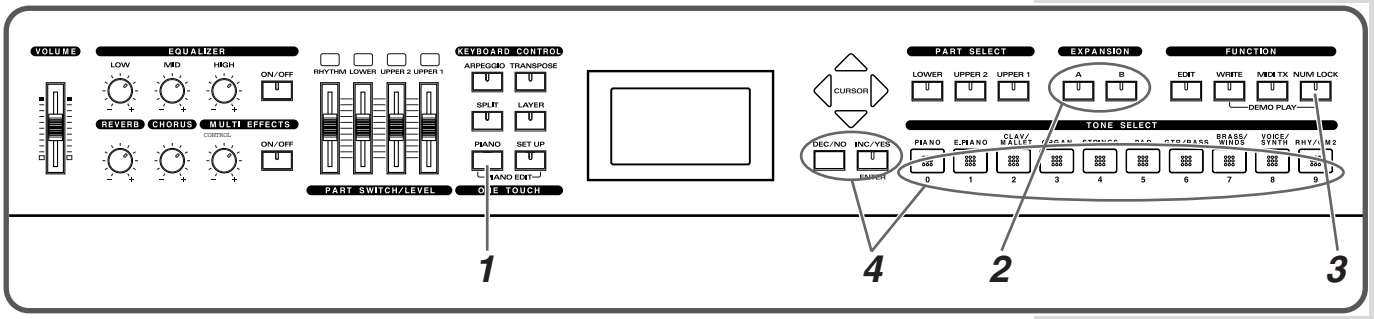
Selecting Wave Expansion Board Tones

Up to two optional wave expansion boards (SRX series) can be installed into the RD-700.

Use the following procedure when selecting tones stored on an wave expansion board.

MEMO

For instructions on installing the Expansion Board, refer to **"Installing the Wave Expansion Board"** (p. 15).



1

Press ONE TOUCH [PIANO].

This selects a single tone to be played over the entire keyboard.

2

Press EXPANSION [A] or [B] to make its indicator light.

If you hold down EXPANSION [A] or [B] for several seconds, the name of the installed wave expansion board appears in the display (p. 18).

3

Press [NUM LOCK] to turn on the button indicator.

4

Press [INC/YES] or [DEC/NO], or press the TONE SELECT buttons to select the Tone.

When using the TONE SELECT buttons to input Tone numbers, press [ENTER] afterwards to set the number.

5

Play the keyboard, and you will hear the selected tone.

MEMO

When changing tones in Layer or Split mode, select the part for which the tone is to be changed with the PART SELECT buttons, without pressing the ONE TOUCH [PIANO] button. For details, refer to **"Changing Tones in Layer and Split Mode"** (p. 44).

MEMO

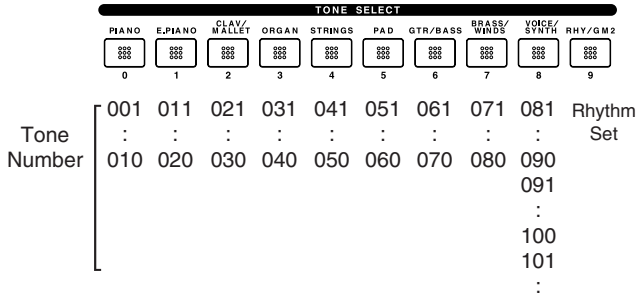
For details on the Tone list for Wave Expansion Board, refer to the "Patch List" and the "Rhythm Set List" of the owner's manual for the SRX Series.

Selecting Tones Without Pressing [NUM LOCK]

You can select tones stored on expansion boards with [NUM LOCK] off.

1. Press EXPANSION [A] or [B] to make its indicator light.
2. Use the TONE SELECT buttons to specify the tone number.

   Wave expansion board tones are assigned to the TONE SELECT buttons as shown below.



3. Press [DEC/NO] or [INC/YES] to select the tone.

   The TONE SELECT button included in the selected Tone numbers flash.
4. Either press the flashing TONE SELECT button or play the keyboard.

   The TONE SELECT button stops flashing and remains lit, and the selected tone is set.

Wave Expansion Board Rhythm Set Tone Numbers

When selecting a Wave Expansion Board Rhythm Set with the RD-700, the Wave Expansion Board Rhythm Sets are placed after Patches (called Tones on the RD-700).

Thus, when you want to specify a Wave Expansion Board Rhythm Set in terms of a Tone number, the Tone number can be arrived at by adding the desired Rhythm Set number in the Rhythm Set List to the last Patch number in the Patch List.

Playing Two Tones on the Keyboard

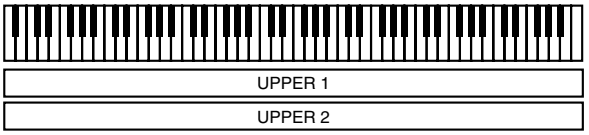
The setting that determines whether one or two Tones are played by a key is referred to as "Key Mode."There are three Key modes.

- **Single**: The same Tone is played by all keys on the keyboard. This is the normal playing mode.
- **Split:** One key acts as the division point (the "split point") separating the keyboard into left- and right-hand sides, with a different Tone played in each.
- **Layer:** Two sounds are played simultaneously.

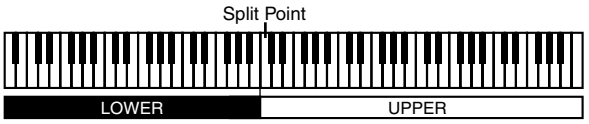
In Layer mode, the two overlapping parts are called UPPER1 and UPPER2; in Split mode, the part in the right-hand side of the keyboard is referred to as the UPPER part, and the part in left-hand side of the keyboard is referred to as the LOWER part. In Single mode, UPPER1 is played over the entire keyboard.

One tone can be assigned to each part.

Layer Mode



Split Mode



To Switch to Single Mode

You can use the following two methods to switch from modes such as Split or Layer mode, in which two or more Tones are played together, to the mode whereby one Tone is played over the entire keyboard (Single mode).

• Press ONE TOUCH [PIANO]

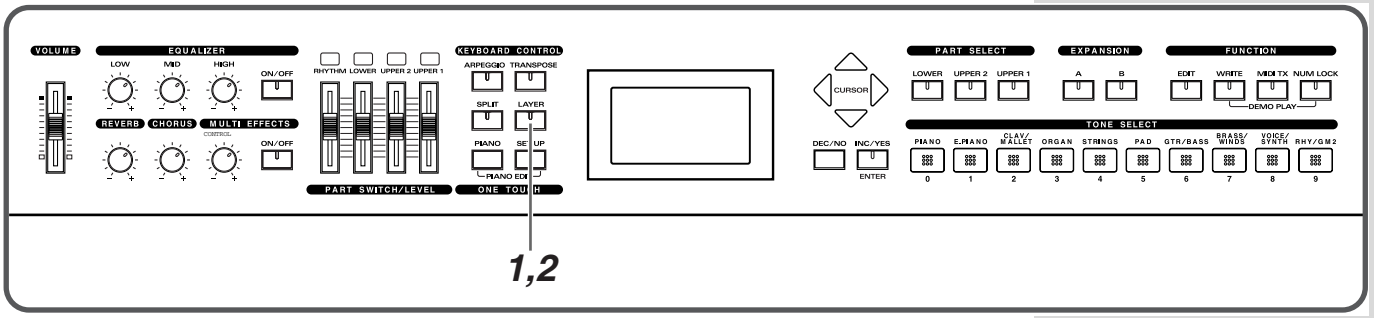
Switch to the mode most suitable for piano performances, where the piano Tone is used by the entire keyboard.

However, pressing ONE TOUCH [PIANO] renders all settings made up to that point ineffective. Save any settings you want to keep to a Setup (p. 56) before pressing ONE TOUCH [PIANO].

• To Turn Off [LAYER] or [SPLIT] (Extinguishing the Indicator)

This switches the RD-700 to the mode in which the UPPER1 Tone is played by all keys.

Playing with Two Layered Tones ([LAYER])

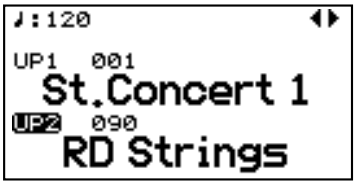


1

Press [LAYER], getting the indicator to light.

PART SWITCH [UPPER1] and [UPPER2] are lit.

Try fingering the keyboard.



The Tones for UPPER1 and UPPER2 are layered and played.

2

To exit Layer mode, press [LAYER] once more, and the indicator light goes out.

Pressing Two TONE SELECT buttons Simultaneously (Layer Mode)

* *Keep [NUM LOCK] off when carrying out this operation.*

You can switch to Layer mode without pressing the [LAYER] button simply by pressing two TONE SELECT buttons at the same time.

For example, if you want to layer a piano sound with strings, together press both [PIANO] and [STRINGS].

The [LAYER] indicator automatically lights up, and when you begin playing the keyboard, the piano and strings sounds are layered together.

When this is done, the tone for the button that is pressed down first (indicator lit in red) is assigned to UPPER1, and the other tone (indicator lit in orange) is assigned to UPPER2. The UP1 and UP2 Part names are both highlighted in the screen, with both Parts being selected.

When two TONE SELECT buttons are selected, then pressing any TONE SELECT button selects the Tone for that button, and the RD-700 reverts to Single mode.

* *The procedure described above does not switch the RD-700 to Layer mode when [LOWER] is selected in the PART SELECT buttons.*

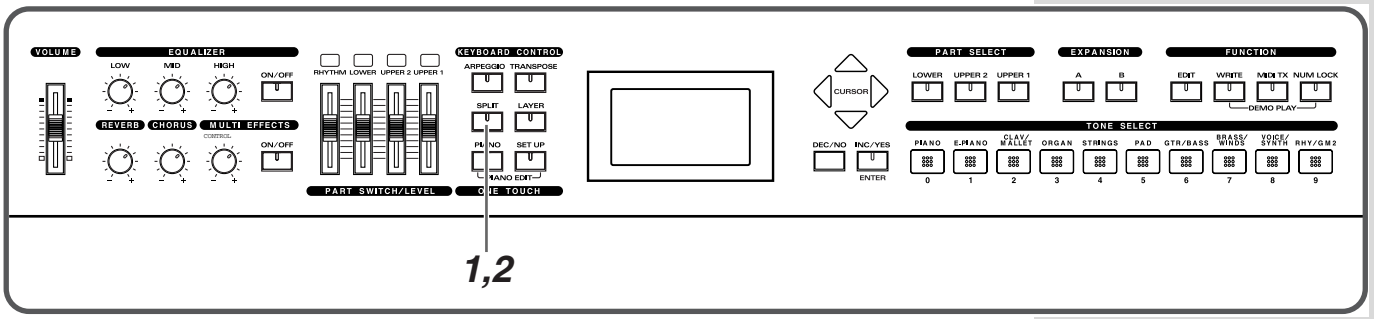
Playing Different Tones in Two Different Sections of the Keyboard ([SPLIT])

Such a division of the keyboard into right- and left-hand sections is called a "Split," and the key where the division takes place is called the "Split Point."The split-point key is included in the UPPER section.

The Split Point has been set at the factory to "C4."

MEMO

You can change the split point.
Please refer to **"Changing the Keyboard's Split Point"** (p. 44).

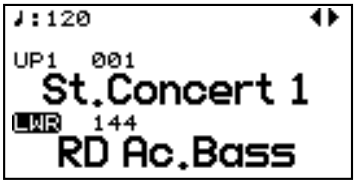


1

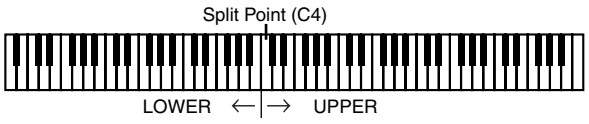
Press [SPLIT], getting the indicator to light.

PART SWITCH [LOWER] lights.

Try fingering the keyboard.



The UPPER tone plays in the right-hand section of the keyboard, and the LOWER tone plays in the left-hand section.

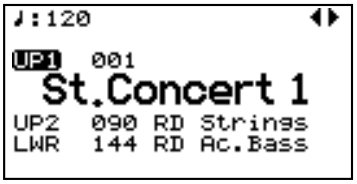


2

To exit Split mode, press [SPLIT] once more, and the indicator light goes out.

Selecting Both Layer and Split Mode

When both [LAYER] and [SPLIT] are on, the LOWER Tone is played at the left side of the Split Point, while the UPPER1 and UPPER2 Tones are layered to the right of the Split Point.



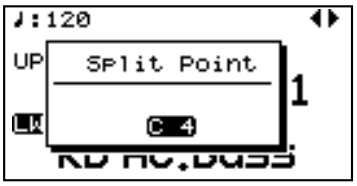
Changing the Keyboard's Split Point

You can change the point at which the keyboard is divided (the Split Point) in Split mode.

1

Hold down [SPLIT] for several seconds.

A screen such as the following appears, and the current value of the setting is displayed.



2

Hold down [SPLIT] and press a key.

When you release [SPLIT], the previous display will reappear.

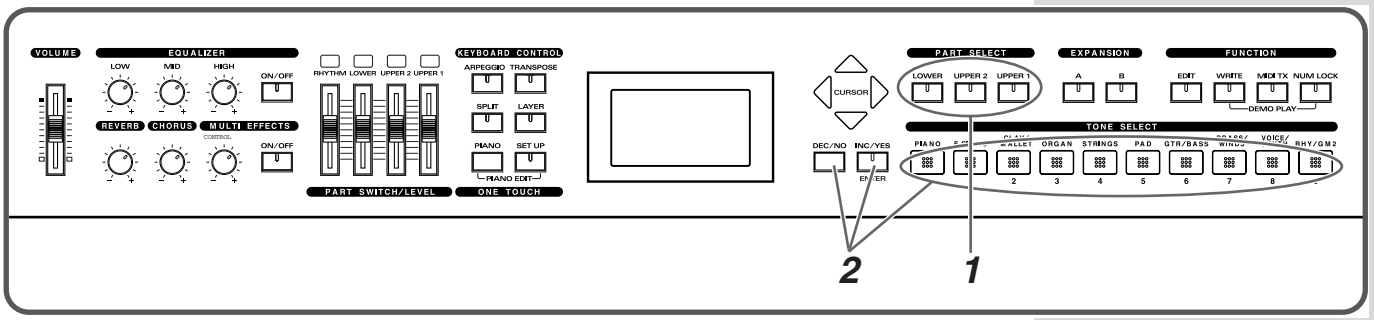
The split-point key is included in the UPPER section.

MEMO

You can freely set the ranges for UPPER1, UPPER2, and LOWER as you prefer. For details, refer to **"Setting the Key Range for Each Part (Key Range)"** (p. 88).

Changing Tones in Layer and Split Mode

When you want to change tones in Layer and Split mode, use the PART SELECT buttons to specify the part for which the tone is to be changed.



1

Press the PART SELECT button for the part whose tone you want to change, causing the part's indicator to light up.

The indicator for the currently selected TONE SELECT button lights up in the same color as the indicator for the selected part.

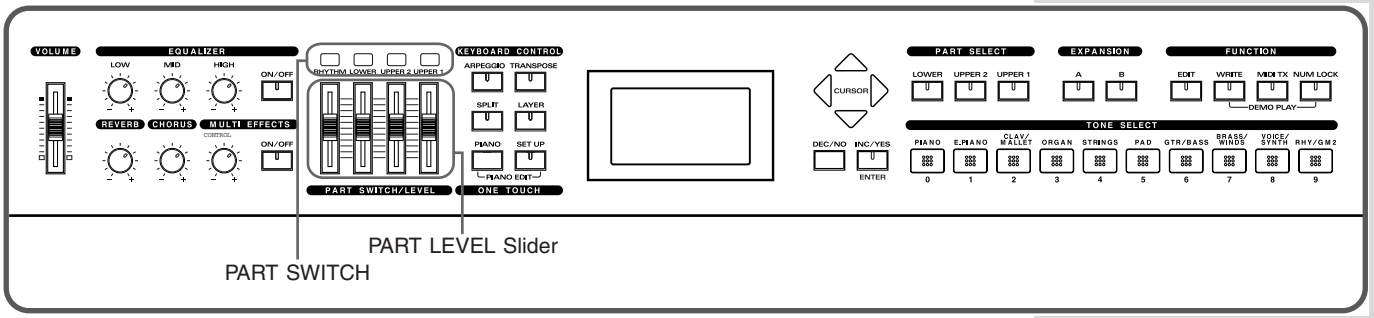
However, the TONE SELECT buttons do not light when [NUM LOCK] is on.

2

Select the tone category with a TONE SELECT button, then press [INC/YES] or [DEC/NO] to select the tone.

When [NUM LOCK] is on, you can specify tone numbers with the TONE SELECT buttons (p. 37).

Adjust the Volume Level for Individual Parts (PART SWITCH/LEVEL)



Parts that are played on the RD-700 using the instrument's internal sound generator are called Local Parts.

You can use the PART SWITCHes and PART LEVEL sliders to make individual settings determining whether the sound for each part is played as well as the volume level for RHYTHM part and Local Parts (LOWER, UPPER1, and UPPER2).

PART SWITCH

This determines whether or not the sounds in the particular part are played.

When a part's PART SWITCH indicator is lit (on), the part sounds when the keyboard is played. The screen Part names are indicated in uppercase letters.

When a part's PART SWITCH indicator is not lighted (off), the part does not sound even when the keyboard is played. The screen Part names are indicated in lowercase letters.

PART SWITCH will turn on or off each time you press it.

PART LEVEL Slider

Adjusts the volume of an individual Part.

When a part's PART SWITCH indicator is not lighted, no sound is produced for the part even when the slider is moved.

MEMO

For more on the control of MIDI TX parts, refer to **"Adjusting the Volume of Each Part (MIDI TX Part)"** (p. 62).

NOTE

The volume of Parts for which any Tone Wheel setting 1–10 is selected cannot be adjusted with the PART LEVEL sliders.

MEMO

Use the VOLUME slider when adjusting the overall volume level (p. 25).

Transposing the Key of the Keyboard ([TRANSPOSE])

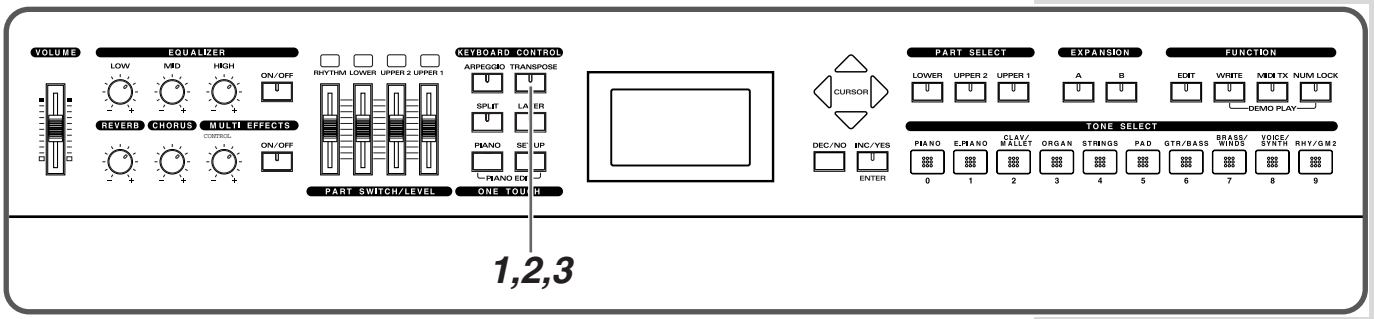
You can transpose performances without changing the keys you are playing, as well as change the pitch by an octave. This feature is called "Transpose."

This is a convenient feature to use when you want to match the pitch of the keyboard performance to a vocalist's pitch, or perform using the printed music for trumpets or other transposed instruments.

The reference Transpose setting is C4, and the setting can be adjusted in semitone units in a range of -41–0– +42.

NOTE

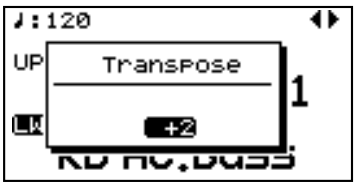
Note messages from MIDI IN will not be transposed.



1

Hold down [TRANSPOSE] for several seconds.

A screen such as the following appears, and the current value of the setting is displayed.



MEMO

Even when the Transpose function is turned on, the Split Point remains unchanged.

2

Hold down [TRANSPOSE] and press a key.

For example, to have "E" sound when you play "C" on the keyboard, hold down [TRANSPOSE] and press the E4 key. The degree of transposition then becomes "+4."

When you release [TRANSPOSE], the previous display will reappear.

When the amount of transposition is set, the Transpose function switches on, and [TRANSPOSE] lights up

When the indicator is flashing, a Transpose settings value of "0" is selected.

MEMO

You can set the degree of transposition for each of the Local parts (p. 31) individually. For details, refer to **"Setting the Transposition for Each Individual Part (Key Transpose)"** (p. 88).

3

To turn off Transpose, press [TRANSPOSE] so that its indicator goes off.

The next time [TRANSPOSE] is pressed, the sound is transposed by an amount corresponding to the value set here.

Adding Reverberation to the Sound (REVERB knob)

The RD-700 can apply a reverb effect to the notes you play on the keyboard. Applying reverb adds pleasing reverberation to what you play, so it sounds almost as if you were playing in a concert hall.

1

Adjust the REVERB knob to select the amount of reverb effect to be applied.

Rotating the knob clockwise applies a deeper reverb, and rotating it counterclockwise applies less reverb.

MEMO

For more detailed information about the reverb effect settings, refer to **"Making Reverb Settings"** (p. 78).

NOTE

When the Tone Edit's Reverb Amount setting in the Edit mode is set to "0," then no effect is applied, even when the REVERB knob is turned (p. 80).

Adding Breadth to the Sound (CHORUS knob)

You can apply a chorus effect to the notes you play on the keyboard. By adding the chorus effect, you can give the sound greater dimension, with more fatness and breadth.

1

Adjust the CHORUS knob to select the amount of chorus effect to be applied.

Rotating the knob clockwise applies a deeper chorus, and rotating it counterclockwise applies less chorus.

MEMO

For more detailed information about the chorus effect settings, refer to **"Setting Chorus and Delay"** (p. 78).

NOTE

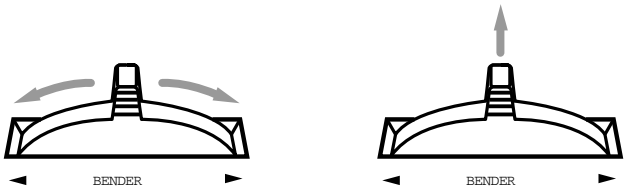
When the Tone Edit's Chorus Amount setting in the Edit mode is set to "0," then no effect is applied, even when the CHORUS knob is turned (p. 80).

Changing the Sound's Pitch in Real Time (Bender/Modulation Lever)

While playing the keyboard, move the lever to the left to lower the pitch, or to the right to raise the pitch. This is known as Pitch Bend.

You can also apply vibrato by manipulating the lever away from you. This is known as Modulation.

If you move the lever away from you and at the same time move it to the right or left, you can apply both effects simultaneously.



Pitch Bend　　Modulation

NOTE

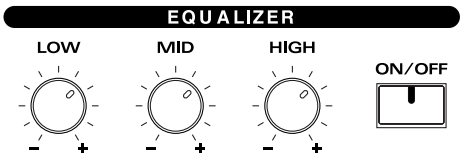
The effect obtained when you move the lever may differ according to the tone being used. Additionally, the effect applied by moving the lever is predetermined for each tone, and cannot be changed.

MEMO

When the Tone Wheel screen is displayed, the Pitch Bend Lever is set so that tilting the lever from left to right switches the Rotary effect from fast to slow. For details, refer to **"Simulating the Creation of Organ Tones (Tone Wheel Mode)"** (p. 75).

Adjusting the Level of the Sound's Low, Mid, and High-Frequency Ranges (EQUALIZER)

The RD-700 is equipped with a three-band equalizer.
You can adjust the levels of the low-frequency, midrange, and high-frequency ranges using the EQUALIZER [LOW], [MID], and [HIGH] knobs, respectively.



NOTE

Equalization is applied to the overall sound output from the OUTPUT jacks.

NOTE

Sounds may become distorted when certain EQUALIZER settings are used. In such instances, use the PART LEVEL sliders or other controls to lower Part volumes, or in Edit mode, adjust the Master Volume settings in the System (p. 70) to lower the overall volume level.

MEMO

You can make more detailed settings for the equalizer. For details, refer to **"Changing the Equalizer Frequency Settings (Freq/Q)"** (p. 74).

1

Press EQUALIZER [ON/OFF] to make its indicator light.
The equalizer is turned on.

2

Turn the knobs to adjust the levels in each range.
Turning a knob towards the minus (-) sign cuts the level of that frequency range; turn the knob towards the plus (+) sign to boost the level of that range.

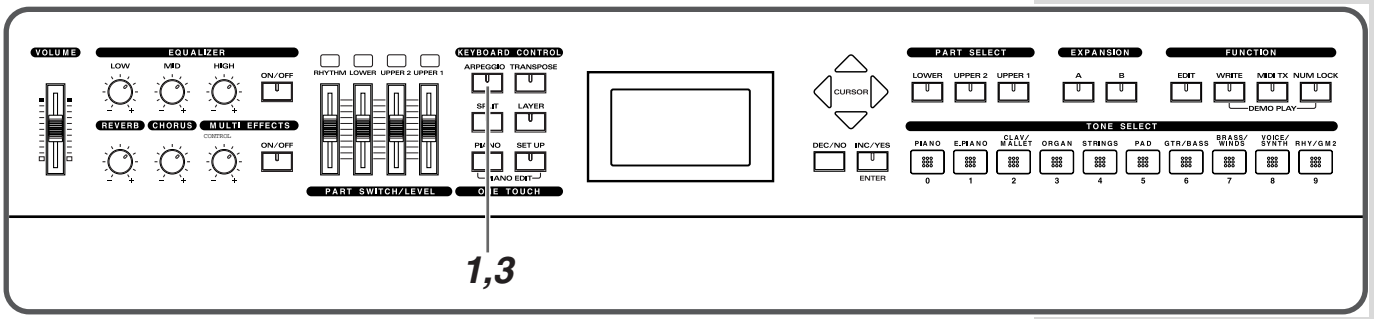
3

To turn the equalizer off, press EQUALIZER [ON/OFF], extinguishing its indicator.

Using the Convenient Functions in Performances

Creating Arpeggios from the Chords You Play ([ARPEGGIO])

Just by playing a chord, you can play an arpeggio (a chord that is played one note at a time) using the notes making up that chord.

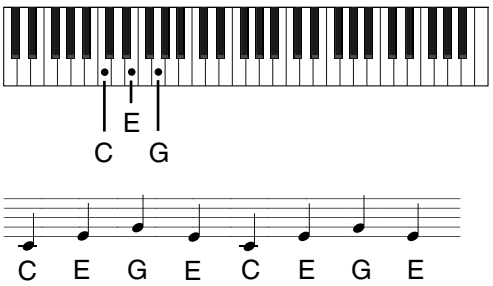


1

Press [ARPEGGIO], getting the indicator to light.

2

Press the key as shown in the figure below.



The arpeggio is played with the sequence of notes, C, E, G, E, C, E, G, E, and so on.
Try playing some other chords, too.

3

If you press [ARPEGGIO] once more, the indicator light goes out, and the keyboard returns to the normal performance mode.

MEMO

You can specify the Part and key range for arpeggios to be played. For details, refer to **"Setting the Key Range for the Arpeggio Performances (Key Range)"** (p. 84).

MEMO

You can also transmit performances that use arpeggios to an external MIDI device from MIDI OUT. When transmitting, set Arpeggio's Dest Part setting to ALL in Edit mode (p. 84).

MEMO

At the factory settings, arpeggios stop playing when you release the keys, but you can also have arpeggios continue playing even after the keys are released (p. 73).

MEMO

When the Arpeggio's Arpeggio Hold is set to ON in Edit mode (p. 87):
- the [ARPEGGIO] indicator flashes.
- if an arpeggio is played while a rhythm plays, the arpeggio will stop at the moment that the rhythm stops.

Changing the Arpeggio Style

You can select the way an arpeggio is played (the style) to match a variety of different musical genres.

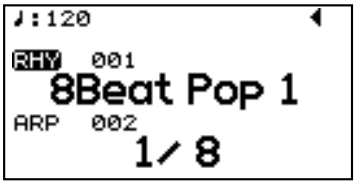
1

Press [ARPEGGIO], getting the indicator to light.

2

Press CURSOR [▶] to go to the Arpeggio/Rhythm screen.

The following Arpeggio/Rhythm screen appears.



3

Press CURSOR [▼] to move the cursor to "ARP."

4

Press [INC/YES] or [DEC/NO] to select the style.

The arpeggio's style changes.

5

Try playing the keyboard.

6

If you press [ARPEGGIO] once more, the indicator light goes out, and the keyboard returns to the normal performance mode.

Changing Arpeggio Tempos

1

In the Arpeggio/Rhythm screen, press CURSOR [▲] to move the cursor to "♩:" in the screen.

2

Press [INC/YES] or [DEC/NO] to change the tempo.

When you play the keyboard, arpeggios are played at the selected tempo.

By changing the arpeggiator settings you can create arpeggios with various patterns.

For details, refer to **"Making Arpeggio Settings (Arpeggio)"** (p. 83).

MEMO

For more information on arpeggio styles, refer to **"Setting the Way Arpeggios are Played (Style)"** (p. 84).

MEMO

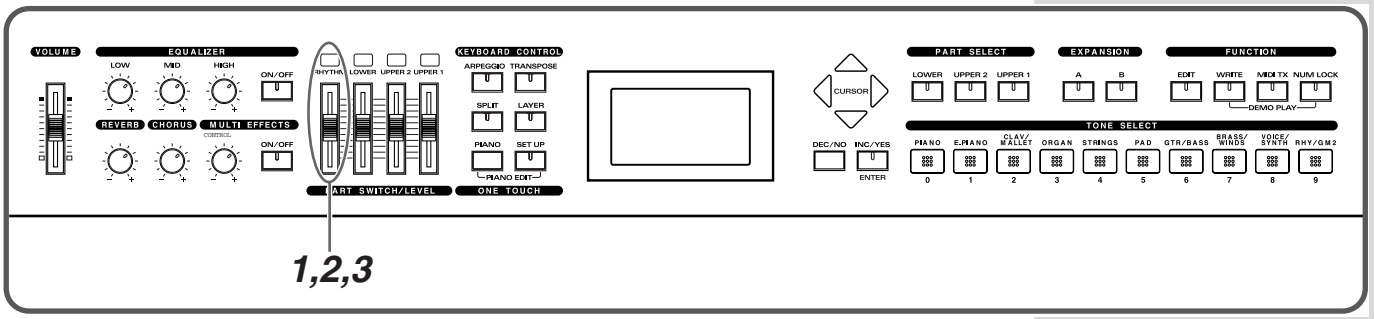
When you're at the Tone screen, you can press CURSOR [▶] to go to the Arpeggio/Rhythm screen. From the Arpeggio/Rhythm screen, you can get back to the Tone screen by pressing CURSOR [◀].

Playing Rhythm ([RHYTHM])

The RD-700 features internal drum patterns complementing Jazz, Rock, and other various musical genres. These drum patterns are referred to as "Rhythms."

You can turn Rhythms on and off individually in any key mode. You can perform using Rhythms combined with various functions, for example performing arpeggios while a Rhythm is playing.

MEMO
When an Local part and MIDI TX part are played simultaneously, the performances of both parts are synchronized.



1

Press PART SWITCH [RHYTHM] to make the button indicator light.

The Rhythm begins playing

2

Adjust the volume of the Rhythm with the [RHYTHM] slider.

3

Press [RHYTHM] once more; the indicator goes out, and the Rhythm stops playing.

The Rhythm stops after playing the ending, when the Rhythm setting is set to playing with the Ending (p. 83).

Also, with this setting, when a rhythm is playing, [RHYTHM] can be rapidly pressed twice to stop the rhythm without playing the ending.

MEMO
You can have intro and ending Rhythm Patterns play at the beginnings and ends of Rhythms.
For details, refer to **"Switching the Intro and Ending On or Off (Intro/ Ending)"** (p. 83).

MEMO
You can set the RD-700 so that Rhythms are not played even when PART SWITCH [RHYTHM] is pressed.
Set the Rhythm Pattern's Pattern to OFF in Edit mode. Refer to **"Changing Patterns (Pattern)"** (p. 82).

MEMO
When the Arpeggio's Arpeggio Hold is set to ON in Edit mode (p. 87), if an arpeggio is played while a rhythm plays, the arpeggio will stop at the moment that the rhythm stops.

Changing the Rhythm Pattern

You can select the way a Rhythm is played (the pattern) to match a variety of different musical genres.

1

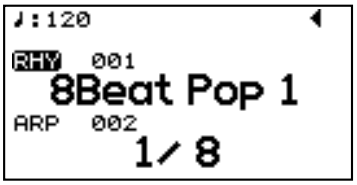
Press PART SWITCH [RHYTHM] to make the button indicator light.

The Rhythm begins playing.

2

Press CURSOR [▶] to go to the Arpeggio/Rhythm screen.

The following Arpeggio/Rhythm screen appears.



3

Press CURSOR [▲] or [▼] to move the cursor to "RHY."

4

Press [INC/YES] or [DEC/NO] to select the pattern.

The Rhythm's pattern changes.

5

If you press [RHYTHM] once more, the indicator light goes out, and the Rhythm stops playing.

Changing Rhythm Tempos

1

In the Arpeggio/Rhythm screen, press CURSOR [▲] to move the cursor to "♩:" in the screen.

2

Press [INC/YES] or [DEC/NO] to change the tempo.

The Rhythm are played at the selected tempo.

You can change various settings such as tempo and pattern of the Rhythm.

For details, refer to **"Making the Rhythm Settings (Rhythm Pattern)"** (p. 82).

MEMO

For more information about the kind of Rhythm Patterns, please refer to **"Rhythm Pattern List"** (p. 143).

MEMO

When the Tone screen is displayed, the Arpeggio/Rhythm screen appears when CURSOR [▶] is pressed. Pressing CURSOR [◀] when the Arpeggio/Rhythm screen is showing then displays the Tone screen.

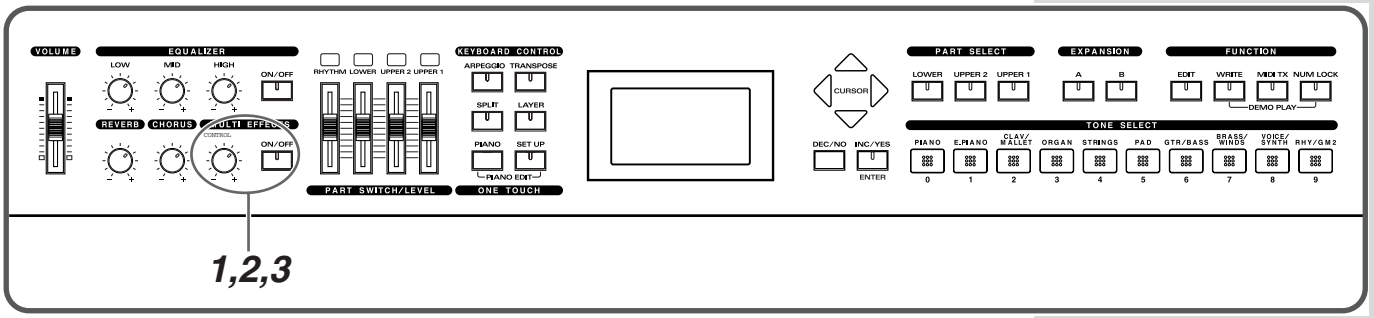
Applying Effects to the Sound (MULTI EFFECTS)

In addition to chorus (p. 47) and reverb (p. 47), the RD-700 also allows you to apply "multi-effects" to sounds. Multi-effects provides a collection of 65 different effects, such as distortion and rotary, from which you can choose.

The factory settings have a suitable effect assigned to each of the tones.

MEMO

For further details on the onboard effects, see the **"Effect/Parameter List"** (p. 104).



1

Press MULTI EFFECTS [ON/OFF], getting its indicator to light.

2

Adjust the amount of multi-effect applied with the [CONTROL] knob.

3

To cancel the multi-effect, press MULTI EFFECTS [ON/OFF], the indicator light goes out.

MEMO

The allowable values adjusted with the [CONTROL] knob vary with the selected effect. For details, refer to **"MFX Control"** (p. 77).

NOTE

Effects are not applied to Tones for which the Tone Edit MFX settings in Edit mode are set to "00 THROUGH" (p. 80). In that case, the MULTI EFFECTS [ON/OFF] indicator will blink.

When Using Multi-effects in Split or Layer Mode

The RD-700 cannot use more than one multi-effect at a time. Therefore, there is a "Source" parameter for whatever multi-effects settings you select, and a "Dest." parameter for the part to which those settings are to be applied.

Thus, you should note that depending on the Source or Dest. settings, some Parts may not have multi-effects applied while in Split or Layer mode.

For more detailed information, refer to **"MFX Source, MFX Dest"** (p. 77).

You can change the multi-effects type as well as a variety of other multi-effects settings. For details, refer to **"Making Multi-Effects Settings"** (p. 77).

Selecting Stored Settings ([SETUP])

The RD-700's Local Part (p. 31) and MIDI TX Part (p. 31) tone settings, effect settings, and other such settings are collectively referred to as a "Setup."

Once you've stored your preferred settings, and settings for the songs to be performed as a Setup, you can then switch whole groups of settings during a performance just by switching Setups.

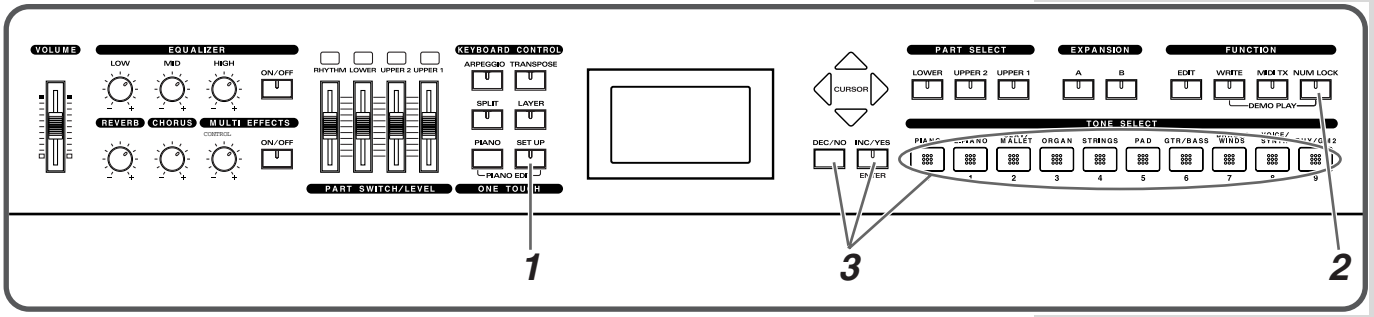
You can store up to 100 different Setups.

The RD-700 is shipped from the factory with recommended Setups already prepared.

Now try actually calling up a Setup.

NOTE

The current settings are erased when a Setup is called up. Be sure to save any Setup you would like to keep first before calling up another Setup (p. 56).



1

Press [SETUP], getting the indicator to light.

The Setup screen, shown below, appears in the display.

2

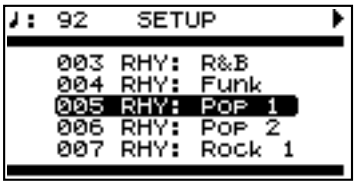
Press [NUM LOCK] to make the indicator light.

3

Press [INC/YES]/[DEC/NO] or TONE SELECT buttons to select the Setup to be called up.

After [INC/YES] or [DEC/NO] is pressed, the following screen appears; the Setup screen then reappears after a few moments.

The screen does not change when the TONE SELECT buttons are used to input Setup numbers. Press [ENTER] afterwards to set the number.



MEMO

When the Tone screen is displayed, the [SETUP] indicator lights and the Setup screen appears when CURSOR [◀] is pressed. From the Setup screen, you can get back to the Tone screen by pressing CURSOR [▶]. However, the Tone Wheel screen is displayed if "Tone Wheel" is selected for any Part in the Tone screen. For detailed, refer to **"Simulating the Creation of Organ Tones (Tone Wheel Mode)"** (p. 75).

MEMO

Setups indicated by a "RHY:" before the name let you enjoy performing with a session-like feel while playing a Rhythm. Be sure to check it out.

4

Try playing the keyboard.

The settings are switched to those of the Setup that has been called up.

Selecting Setups Without Pressing [NUM LOCK]

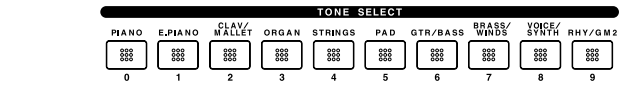
Using the TONE SELECT buttons, you can specify groups of ten Setups at a time.

1. Press [SETUP], getting the indicator to light.

At this time, turn [NUM LOCK] off.

2. Use the TONE SELECT buttons to specify the Setup number.

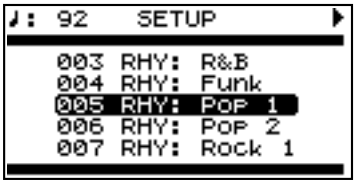
Setups are assigned to the TONE SELECT buttons as shown below.



SETUP Number									
001	011	021	031	041	051	061	071	081	091
:	:	:	:	:	:	:	:	:	:
010	020	030	040	050	060	070	080	090	100

3. Press [DEC/NO] or [INC/YES] to select the Setup.

When [INC/YES] or [DEC/NO] is pressed, the TONE SELECT buttons included in the selected Setup numbers flash, and the following screen appears.



4. Either press the flashing TONE SELECT button or play the keyboard.

The TONE SELECT button stops flashing and remains lit, and the selected Setup is set.

MEMO

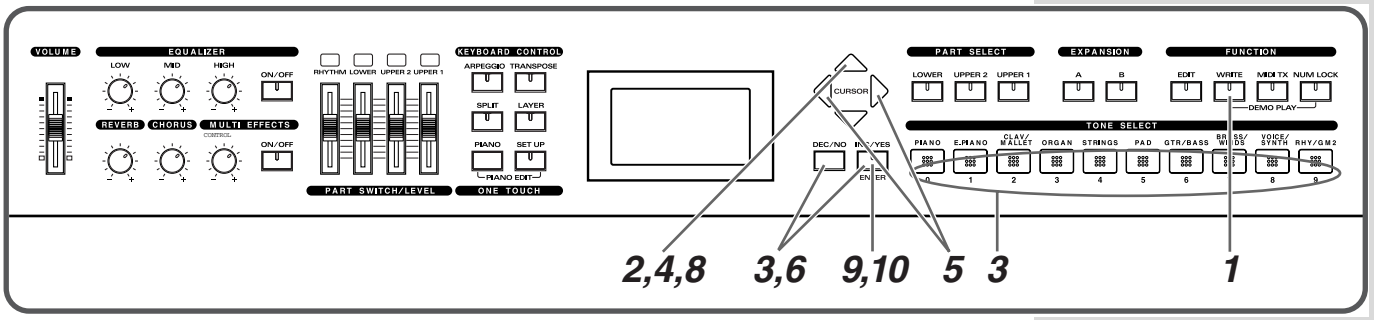
The [RHYTHM] indicator flashes if you select a setup that has Intro/Ending set to ON. Press [RHYTHM] to start the rhythm with the Intro.

Storing Settings to Setups ([WRITE])

When the contents of a Setup are changed, an asterisk (a "*" mark) appears on the right of the tempo indication. If you want to use the changed content as a new Setup, use the following procedure to save the settings to a Setup.

You can also change the name of a Setup.

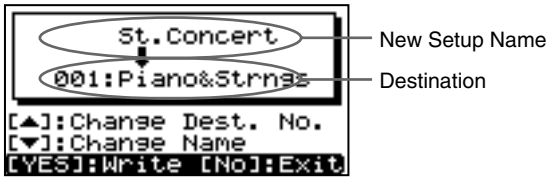
You can store 100 Setups on the RD-700.



1

Press [WRITE], getting the indicator to light.

The Setup screen appears.



2

Press CURSOR [▲] to move the cursor to the destination Setup name.

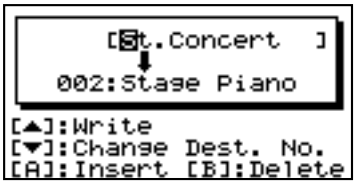
3

Select the save-destination Setup, either by pressing [INC/YES] or [DEC/NO].

When using the TONE SELECT buttons to input Setup numbers, press [ENTER] afterwards to set the number.

4

Press CURSOR [▲] to move the cursor to the new Setup name.



5

Press CURSOR [◀]/[▶] to move the cursor to the positions where the characters are to be input.

6

Press [INC/YES] or [DEC/NO] to enter the characters.

The following characters are available.

Space, A–Z, a–z, 0–9, ! " # $ % & ' ( ) * +, - . / ; : < = > ? @ [¥] ^ _ ` { | }

When EXPANSION [A] is pressed, a single-character blank space is inserted; pressing EXPANSION [B] deletes one character.

7

Repeat steps 5–6 to input the name.

Pressing CURSOR [▼], even while inputting the name, moves the cursor to the save-destination Setup number.

8

When you have finished determining the save destination and the name for the new Setup, press CURSOR [▲] to move the cursor to the confirmation message.

The [INC/YES] indicator is flashing.

If you do not want to save the Setup, press [DEC/NO].

The operation is cancelled, and you are returned to the Tone screen.

9

Press [INC/YES].

The confirmation message appears.

10

When [INC/YES] is pressed, saving of the Setup begins.

When you have finished saving the Setup, "COMPLETED" appears in the display and the [WRITE] indicator goes out.
You are returned to the Tone screen.

NOTE

Never switch off the power while "Please keep on power" appears in the display.
Doing so may damage the internal memory, making it impossible to use this instrument.

Settings Not Saved in a Setup

The following settings cannot be saved to a Setup.

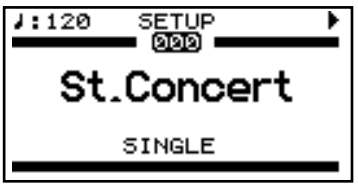
- Rec Setting (p. 95)
- [CONTROL] knob positions (values)
- System settings (p. 69)

  System settings are saved each time one of these parameters is changed.

Setup <000>

When you press the ONE TOUCH [PIANO] button, and then press CURSOR [◀] or [SETUP] to bring up the Setup screen, SETUP<000> is displayed.

This Setup <000> is called "Piano Setup."



This SETUP<000> is the Setup containing the stored settings for ONE TOUCH [PIANO]; the contents cannot be overwritten by pressing the [WRITE] button as with other Setups.

When saving content changed from the ONE TOUCH [PIANO] settings, write the settings to SETUP<001> or later.

Using the RD-700 As a Master Keyboard

By connecting an external MIDI device to the MIDI OUT connector on the RD-700's rear panel, you can then control the external MIDI device with the RD-700.

Normally, the RD-700 transmits Note messages from the MIDI OUT connector, but when [MIDI TX] is on, you can control not only Note messages, but a variety of other external MIDI device settings as well.

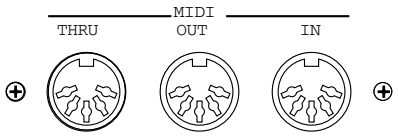
You can control internal and external sound generators independently.

What's MIDI?

MIDI (Musical Instruments Digital Interface) is a standard specification that allows musical data to be exchanged between electronic musical instruments and computers. By using a MIDI cable to connect devices that have MIDI connectors, you can create an ensemble in which a single MIDI keyboard can play multiple instruments, or change settings automatically as the song progresses.

About MIDI Connectors

The RD-700 has the following three types of MIDI connector. Their functions differ as described below.



MIDI N Connector

Performance messages from an external MIDI device are received here. These incoming messages may instruct the RD-700 to play sounds or switch tones.

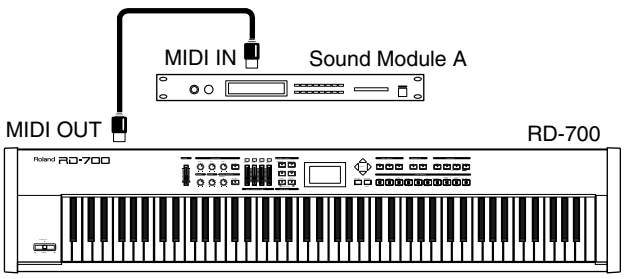
MIDI OUT Connector

MIDI messages are transmitted from this connector to external MIDI devices. The RD-700's MIDI OUT connector is used for sending the performance data of the keyboard controller section as well as data used for saving various settings and patterns (Bulk Dump ➔ p. 92).

MIDI THRU Connector

MIDI messages received at MIDI IN connectors are re-transmitted without change from this connector to an external MIDI device. Use this in situations such as when you use multiple MIDI devices simultaneously.

Connecting to External MIDI Sound Generators



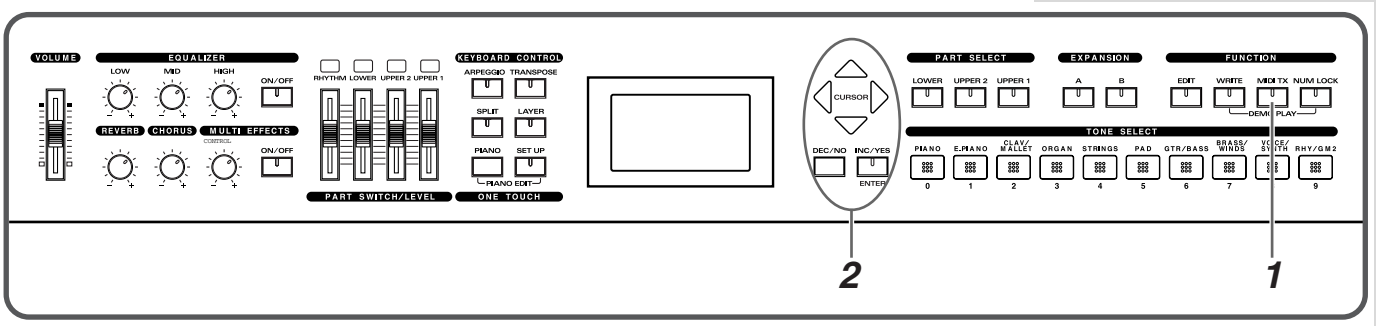
MEMO

For instructions on connecting the external devices, refer to **"Connecting the RD-700 to External Equipment"** (p. 22).

MIDI Send Channel Settings

When you have finished connecting the external MIDI device, match the keyboard's Transmit channel and the Receive channel for each of the external MIDI sound generator's Parts. Sounds is produced when the MIDI channels for the sending device (the RD-700) and the receiving device (the external MIDI sound generator) are set to the same MIDI channel.

MEMO
You can save the keyboard's Transmit channel to a Setup (p. 56).

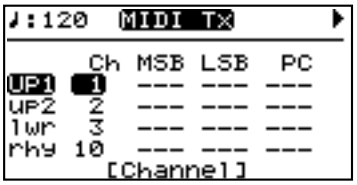


1

Press [MIDI TX], getting the indicator to light.

The MIDI Tx screen appears.

If "Ch" doesn't appear on screen, press CURSOR [◀] several times to display the following screen.



2

Press CURSOR [◀], [▲], [▶], or [▼] to move the cursor, then press [INC/YES] or [DEC/NO] to set the Transmit channel (Ch) for each part.

Part	Settings	Description
UP1 (UPPER1)	1–16	RD-700 performance data is sent over a selected channel.
UP2 (UPPER2)		
LWR (LOWER)		
RHY (RHYTHM)		

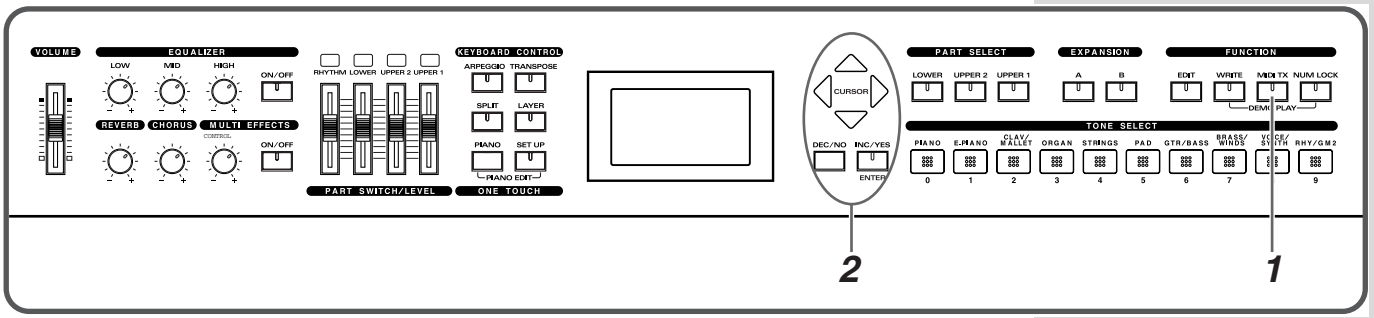
MEMO
For instructions on setting each of the external MIDI sound generator's Part's Receive channel, refer to the owner's manual for each device.

MEMO
Part names for Parts in which PART SWITCH is set to OFF appear in the display in lowercase letters, such as "up1," "up2," "lwr," and "rhy."
MIDI messages for Parts with the PART SWITCH set to OFF are not transmitted.

NOTE
When Rec Mode is set to ON in the Utility Rec Setting in Edit mode, the MIDI TX screen as shown to the left is not displayed. Set Rec Mode to OFF when setting the MIDI Transmit channel (p. 95).

Selecting Sounds on an External MIDI Device

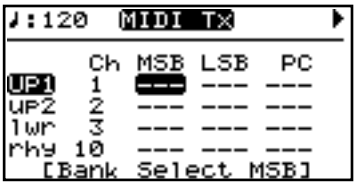
To switch the tones of an external MIDI device, the program number and the MSB/LSB of the Bank Select message are entered as numerical values on the RD-700.



1

Press [MIDI TX], getting the indicator to light.

If "MSB" doesn't appear on screen, press CURSOR [◀] several times to display the following screen.



Parameter	Tx	Settings
MSB (Bank Select MSB)	CC 32	0~127, ---(OFF)
LSB (Bank Select LSB)	CC 00	0~127, ---(OFF)
PC (Program Change)	Program Change	0~127, ---(OFF)

2

Press CURSOR [◀], [▲], [▶], or [▼] to move the cursor, then press [INC/YES] or [DEC/NO] to set the MSB, LSB, and PC for each part.

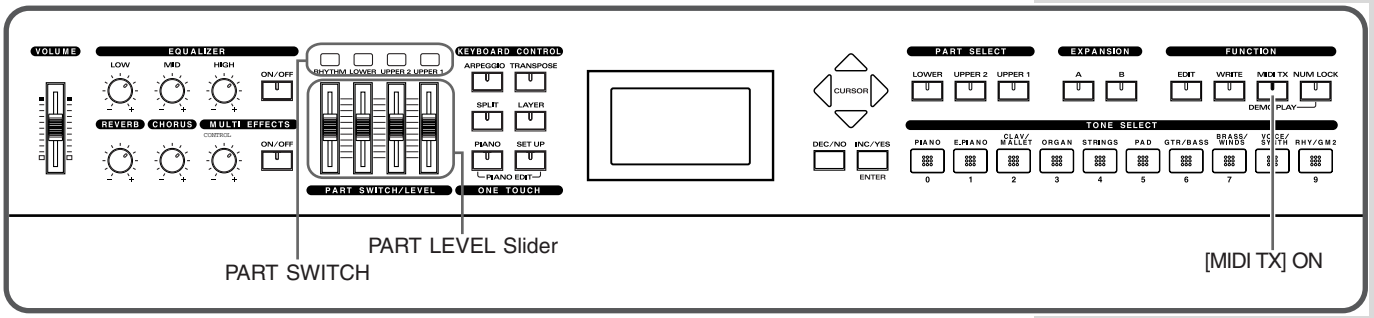
Pressing [INC/YES] and [DEC/NO] simultaneously switches the settings value to "--- (OFF)."

When this setting is "--- (OFF)," bank select messages will not be transmitted.

NOTE

If the external MIDI sound generator transmits a Program number or a Bank number for which no Tone has been assigned, an alternate Tone may be selected, or in some cases, there may be no sound played. If you do not want to transmit the Program number or Bank Select, use the procedure described left to set the PC/MSB/LSB to "--- (OFF)."

Adjusting the Volume of Each Part (MIDI TX Part)



When the [MIDI TX] indicator is on, you can use the PART SWITCH/ LEVEL controls to control the MIDI TX parts in the same way as with the Local parts (p. 31).

PART SWITCH

When the [MIDI TX] indicator is on, PART SWITCH determines whether or not MIDI Note messages for each of the MIDI TX parts are transmitted from MIDI OUT.

When the PART SWITCH indicator for a part is lit (on), MIDI Note messages are transmitted from MIDI OUT when the keys for that part are played.

When the PART SWITCH indicator for a part is not lighted (off), MIDI Note messages are not transmitted from MIDI OUT even when the keys for that part are played.

PART SWITCH will turn on or off each time you press it.

PART LEVEL Slider

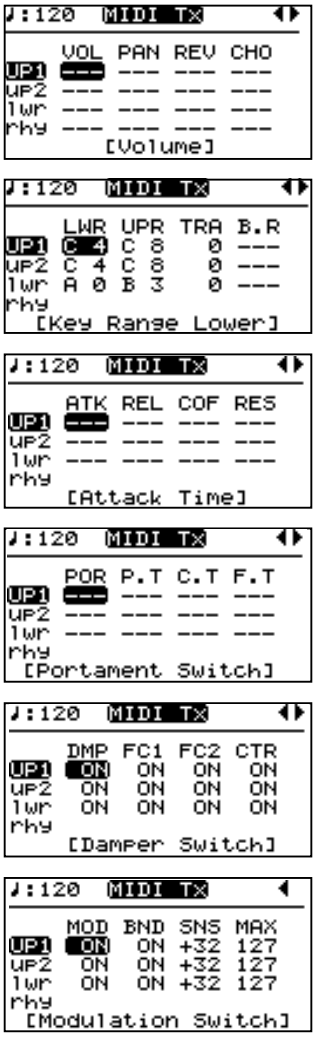
When the [MIDI TX] indicator is on, PART LEVEL adjusts the volume level of each of the MIDI TX parts.

MEMO

For more on controlling the Local parts, refer to **"Adjust the Volume Level for Individual Parts (PART SWITCH/LEVEL)"** (p. 45).

Detailed Settings for Transmitted Parts ([MIDI TX])

After pressing [MIDI TX], you can then set the following parameters affecting MIDI TX parts.



How to Make Settings

1. Press [MIDI TX], getting the indicator to light.

The RD-700 is set to control the external MIDI devices.

2. Press CURSOR [◀], [▲], [▶], or [▼] to move the cursor to the parameter to be set.

You can get the cursor to move more rapidly by holding down the CURSOR button that points in the direction you want the cursor to move while you also press the CURSOR button that points in the opposite direction.

3. Press [INC/YES] or [DEC/NO] to set the value.

Press [INC/YES] and [DEC/NO] simultaneously to switch the Value to "--- (OFF)."

Adjusting the Volume and Pan

Sets the panning (localizes sound image) for each of the Tones.

The Volume setting is mainly used in the Split and Layer key modes to obtain the desired balance in volume between each part.

The Pan setting positions the sound image of each part when the output is in stereo. With an increase in the value for L, more of the sound will be heard as coming from the left side. Similarly, more of the sound will originate at the right if the value of R is increased. When set to 0, the sound is heard as coming from the center.

Parameter	TX CC#	Value
VOL (Volume)	CC07	0-127
PAN (Pan)	CC10	L63–0–63R

Setting the Amount of Reverb and Chorus

This sets the depth of the reverb and chorus effects.

Parameter	TX CC#	Value
REV (Reverb)	CC93	0–127
CHO (Chorus)	CC91	0–127

Setting the Key Range (LWR/UPR)

Set the keyboard range in which each Part will sound.

This can be used to make notes in different areas of the keyboard play different Tones.

Specify the lower limit (LWR) and upper limit (UPR) of the key range being set.

Parameter	Value
LWR (Lower)	A0–C8
UPR (Upper)	A0–C8

NOTE

This is effective only when [SPLIT] is on (p. 43) in the key range settings.

NOTE

You cannot set the key range's lower limit higher than the upper limit, nor can you set the upper limit below the lower limit.

MEMO

You can use PART SWITCH for each individual part to select whether or not MIDI Note messages for that part are to be

transmitted (p. 62).

Setting the Transposition for Each Individual Part (Key Transpose)

You can perform with each part transposed to a different pitch.

When the Keyboard Mode is Layer, you can create a richer sound by setting the two Tones to different octaves. Also, if the Keyboard Mode is set to Split and you are playing a bass Tone in the lower Part, you can use the Key Shift function to play the bass at a lower pitch.

Parameter	Value
TRA (Transpose)	-48 – 0 –+48

Setting the Range for the Change in Pitch with the Bender (Bend Range)

This sets the amount of pitch change that will occur when you move the Pitch Bend lever (+/- 4 octaves).

Parameter	RPN	Value
B.R (Bend Range)	00H/00H	0–48

Changing Tone Elements (ATK/REL/COF/RES)

You can make changes in tones by adjusting the settings of the following four elements.

ATK (Attack Time):

The time it takes after the key is pressed for a sound to reach full volume.

REL (Release Time):

The time it takes after the key is released for a sound to become inaudible.

COF (Cutoff):

Adjusts how much the filter is opened.

RES (Resonance):

This boosts the portions in the region around the cutoff frequency, lending a particular quality to the sound. Excessively high settings can produce oscillation, causing the sound to distort.

Parameter	TX CC#	Value	Description
ATK	CC73	-63– +63	Higher values produce a milder attack; lower values produce a sharper attack.
REL	CC73	-63– +63	Higher values produce longer decay; set lower values for a clear-cut sound.
COF	CC74	-63–+63	Higher values brighten the sound; lower values make the sound seem darker.
RES	CC71	-63–+63	Higher value makes the special quality of the sound stronger; lower value reduce these characteristics.

Smoothly Changing the Pitch (Portamento)

Portamento is a function that causes the pitch to change smoothly from one note to the next note played.

The Portamento Time setting determines the time for the change in pitch when the portamento effect is applied to the sound. Higher settings will cause the pitch change to the next note to take more time.

Parameter	TX CC#	Value
POR (Portamento Switch)	CC65	OFF, ON
P.T (Portamento Time)	CC5	0–127

Changing the Pitch (Coarse Tune/Fine Tune)

This makes settings related to the pitch of each Part.

Parameter	RPN	Description	Value
C.T (Coarse Tune)	00H/02H	Sets the sound's pitch in semitone units.	-48– +48 (+/- 4 octaves)
F.T (Fine Tune)	00H/02H	Sets the sound's pitch in units of one cent.	-50– +50 (+/- 50 cents)

MEMO

1 cent = 1/100 semitone

Turning Each Controller On and Off

These settings determine whether the external MIDI device is controlled (ON), or not (OFF) by the pedals connected to each PEDAL jack, the [CONTROL] knobs, the Modulation lever, and the Bender.

Parameter	Description	Value
DMP	Damper pedal	ON, OFF
FC1	Pedal connected to the FC1 jack	
SwitchFC2	Pedal connected to the FC2 jack	
CTR	[CONTROL] Knobs	
MOD	Modulation Lever	
BND	Bender	

Setting the Change in Volume According to the Force Used to Play the Keyboard (Velocity)

Set the change in volume that occurs in response to the force used to play the keyboard (velocity) and the maximum value of the change.

NOTE

This setting is disregarded with certain tones.

Parameter	Value	Description
SNS (Velocity Sens)	-63–+63	This setting determines how the volume changes in response to the velocity. The volume is increased as the keyboard is played with greater force when a positive Value is used; when a negative value is selected, the volume decreases as the keys are played with greater force. If this is set to "0," the volume will not be affected by the strength of your playing on the keyboard.
MAX (Velocity Max)	1–127	This is the maximum value for the change in volume occurring in response to the velocity. Lowering this value will produce softer notes even if you play the keyboard strongly.

Making Detailed Settings for the Piano Tones (Piano Edit)

You can make more detailed settings to fashion just the Tones you want using the piano Tone selected by pressing ONE TOUCH [PIANO] (p. 35).

This function is called "Piano Edit."

The settings made in Piano Edit are stored to ONE TOUCH [PIANO].

NOTE

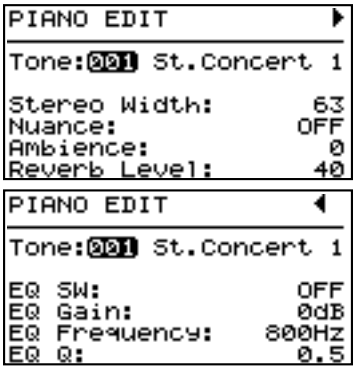
When ONE TOUCH [PIANO] is pressed, all settings other than the Piano Edit settings are switched to their status at the time the RD-700's power was turned on.

Store any arrangements of settings that you want to keep in Setup (p. 56).

Making the settings

1. While holding down ONE TOUCH [PIANO], press [SETUP].

   [EDIT] and [NUM LOCK] are lit, and the following Piano Edit screen appears.



2. Press CURSOR [◀] or [▶] to switch screens, and press CURSOR [▲] or [▼] to move the cursor to the parameter to be set.
3. Press [INC/YES] or [DEC/NO] to set the value.
4. When you finish making settings, press ONE TOUCH [PIANO].

Parameters

Selecting the Piano Sound

This chooses the piano Tone to be selected when ONE TOUCH [PIANO] is pressed.

There are sixteen Tones to choose from.

Changing the Width of the Sound (Stereo Width)

Adjusts the spaciousness of the sound.

Parameter	Value	Description
Stereo Width	0–63	Changes the width of the sound. The higher the value set, the wider the sound is spread out.

Changing the Sound's Nuance (Nuance)

This changes the Tone's subtle nuances by altering the phase of the left and right sounds.

Parameter	Value
Nuance	OFF, TYPE1, 2, 3

NOTE

Depending on the piano Tone selected, this setting may not be available.

NOTE

This effect is difficult to hear when headphones are used.

Changing the Sense of Space Surrounding the Sound (Ambience)

Changing the sound's ambience allows you give your performances a sound resembling that obtained in a wide open space.

Parameter	Value	Description
Ambience	0–5	The effect becomes deeper as the value is increased.

NOTE

Depending on the piano Tone selected, this setting may not be available.

Changing the Amount of Reverb Effect (Reverb Level)

Adjusts the depth of the Reverb effect. This functions the same way as the REVERB knob, but the setting made here can be called up simply by pressing ONE TOUCH [PIANO].

Parameter	Value	Description
Reverb Level	0–127	The reverb effect becomes stronger as the value is increased.

Making the Midrange Equalizer Settings (EQ-SW/EQ Gain/ EQ Frequency/EQ Q)

This sets the midrange equalization.

Parameter	Value	Description
EQ-SW	ON, OFF	This determines whether the following EQ-Freq, EQ Gain, and EQ Q settings are enabled (ON), or not (OFF).
EQ Gain	-15.0–+15.0 dB	Change the amount of equalization (gain).
EQ Frequency	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz	Set Frequency Point. Changes the level of the selected frequency range, with frequency selected here at the center.
EQ Q	0.5, 1.0, 2.0, 4.0, 8.0	Adjusts the "Q" (bandwidth) of equalization. The higher the value, the narrower the range of frequencies that are affected.

NOTE

Depending on the piano Tone selected, this setting may not be available.

Detailed Settings for Each Function ([EDIT])

The process of changing tone parameters to create the tones you like, and changing the settings for various functions is known as "editing."

When [EDIT] is pressed and the indicator is lit, the RD-700 switches to "Edit mode."

You can save edited settings to Setups.

Edited settings are discarded when the RD-700's power is turned off, so be sure that any settings you want to keep are saved to a Setup. For details, refer to **"Storing Settings to Setups ([WRITE])"** (p. 56).

System function (0. System) settings are saved the instant a change is made in any of the parameter values. Therefore, no changes to the settings are lost, even when the power is turned off.

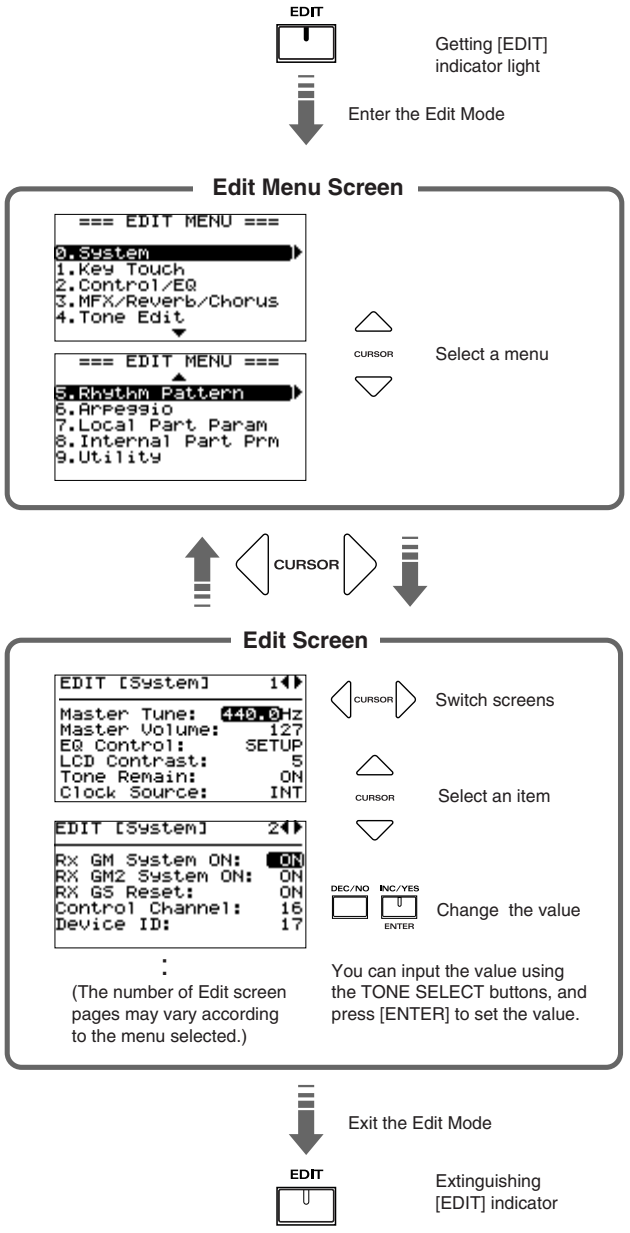
Parameters That Can Be Set

You can set the following parameters in Edit mode.

EDIT

0.System (P. 69)	Master Tune (→P. 29)
	Master Volume
	EQ Control
	LCD Contrast (→P. 28)
	Tone Remain
	Clock Source
	Rx GM System ON
	Rx GM2 System ON
	Rx GS Reset
	Control Channel
	Device ID
	Pedal Polarity
1. Key Touch (P. 71)	Key Touch
	Key Touch Offset
	Velocity
	Velocity Delay Sensitivity
	Velocity Keyfollow Sensitivity
2. Control/EQ (P. 73)	FC1
	FC2
	Control
	Source
	EQ Low Frequency
	EQ Mid Frequency
	EQ Mid Q
	EQ High Frequency
	<Band> Gain
	Harmonic Bar (P. 76)
3. MFX/Reverb/Chorus (P.76)	MFX Source
	MFX Destination
	Type
	MFX Control
	<Other Parameter> Value
	Reverb Type
	Reverb Pre-Delay
	Reverb Time
	Reverb High Cut
	<Other Parameter> Value
	Chorus/Delay
	Chorus Pre-Delay
	Chorus Rate
	Chorus Feedback
	<Other Parameter> Value
	Delay-Center
	Delay-Left
	Delay-Right
	<Other Parameter> Value
4. Tone Edit (P. 79)	<Part> Tone
	Reverb Amount
	Chorus Amount
	MFX
	Mono/Poly
	Coarse Tune
	Fine Tune
	Portamento Switch
	Portamento Time
	Attack Time
	Release Time
	Cutoff
	Resonance
	Bend Range
	Stretch Tune
5. Rhythm Pattern (P. 82)	Tempo
	Pattern
	Rhythm Type
	Rhythm Set
	Rhythm Set Change
	Intro/Ending
6. Arpeggio (P. 83)	Tempo
	Destination Part
	Key Range
	Style
	Octave Range
	Motif
	Beat Pattern
	Accent Rate
	Shuffle Rate
	Velocity
	Arpeggio Hold
7. Local Part Parameter (P. 87)	<Local Part>
	Key Range
	Velocity Sensitivity
	Velocity Max
	Key Transpose
	Damper Pedal Switch
	FC1 Pedal Switch
	FC2 Pedal Switch
	Modulation Switch
	Bender Switch
	Control Switch
	Part Assign
8. Internal Part Parameter (P. 89)	<Part>
	Receive Channel
	Volume
	Pan
	MFX Switch
	Voice Reserve
	Rx Bank Select
	Rx Program Change
	Rx Modulation
	Rx Bender
	Rx Volume
	Rx Hold -1
	Rx Pan
	Temperament
	Temperament Key
9. Utility (P. 92)	Rec Setting
	Bulk Dump Temporary
	Bulk Dump SETUP
	Factory Reset Current
	Factory Reset All

Setting Parameters



Making System Settings (System)

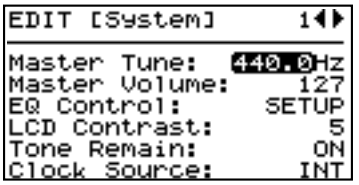
Functions that affect the RD-700's overall operating environment are called "System functions."

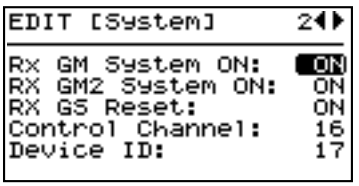
How to Make Settings

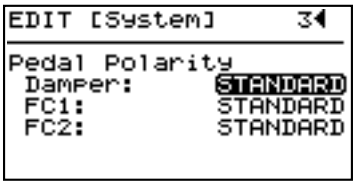
1. Press [EDIT], getting the indicator to light.
The Edit Menu screen appears.

2. Press CURSOR [▲] to select "0.System."

3. Press CURSOR [▶] to display the Edit screen.







4. Press CURSOR [◀] or [▶] to switch screens, and press CURSOR [▲] or [▼] to move the cursor to the parameter to be set.

5. Press [INC/YES] or [DEC/NO] to set the value.

6. When you have finished making the settings, press [EDIT], extinguishing its indicator.
When you exit Edit mode, the changed System settings are stored to the RD-700.
You are returned to the Tone screen.

MEMO

Settings for system functions are saved in the RD-700 whenever a change is made to their parameters. These settings are not deleted even when the power is turned off.

MEMO

For more on the following system function parameters, refer to the corresponding pages.

Master Tune →p. 29 **LCD Contrast** →p. 28

Adjusting the Volume (Master Volume)

Adjusts the volume of the entire RD-700.

Parameter	Value
Master Volume	0–127

Preventing Equalizer Settings from Being Switched (EQ Control)

You can store different equalizer settings (p. 74) for each individual Setup (p. 54).

This setting determines whether or not the Setup equalizer settings values are to be changed when Setups are switched.

Parameter	Value	Description
EQ Control	SETUP	Equalizer settings change when Setups are switched.
	SYSTEM	Equalizer settings do not change when Setups are switched.

MEMO

When this is set to SYSTEM, a "EQ" is displayed in the upper right of each screen.

NOTE

With this setting set to SYSTEM, you cannot change the Control/EQ settings (p. 74).

Retaining the Current Tone Even When Tones Are Switched (Tone Remain)

This setting specifies whether the currently heard sound will continue (ON) or not (OFF) when another tone is selected.

Parameter	Value
Tone Remain	OFF, ON

NOTE

Effects settings change as soon as you switch to a new Tone, without being influenced by the Tone Remain setting. Because of this, certain effects settings can cause notes that were until then sounding to no longer be heard, even though Tone Remain has been set to on.

Changing the Clock (Timing) Source (Clock Source)

You can control the tempo from an external MIDI device. Set this to MIDI when synchronizing to the clock (tempo) of an external MIDI device.

Parameter	Value	Description
Clock Source	INT	Synchronized to the internal clock
	MIDI	Synchronized to the external MIDI device's clock The tempo indication "♩ : " changes to "M:" for each screen.

MEMO

Internal tempo settings are made in the Tone screen (p. 32), the Rhythm Edit screen (p. 82), and the Arpeggio Edit Screen (p. 83).

NOTE

The tempo cannot be set if Clock Source is set to MIDI without there being any external MIDI device connected. This can result in arpeggios (p. 49) and Rhythms (p. 51) not sounding, and may change the manner in which certain effects are applied.

Switching Between Reception of GM/GM2 System On and GS Reset

Specifies whether General MIDI System On, General MIDI 2 System On, or GS Reset messages from external MIDI devices will be received (ON) or not (OFF).

Parameter	Value
Rx GM System ON	ON, OFF
Rx GM2 System ON	
Rx GS Reset	

Using Program Change Messages to Switch Setups (Control Channel)

You can switch the RD-700's Setups with MIDI messages from an external MIDI device.
Set the MIDI Receive channel for receiving the MIDI messages (Program Changes) from the external MIDI device to be used for switching Setups.
When not switching Setups from an external MIDI device, set this to OFF.

Parameter	Value
Control Channel	1–16, OFF

NOTE

When the Control Channel settings are transmitted along with the part's MIDI receive channel, switching of Setups takes priority over the switching of tones.
For more information about **"Switching Setups"** (p. 97).

Setting the Device ID Number (Device ID)

The Device ID number is an identification number used when transmitting and receiving MIDI Exclusive messages. When transmitting Exclusive messages, the device ID numbers of the corresponding devices must be matched.

Parameter	Value
Device ID	17–32

Switching the Pedal's Polarity (Pedal Polarity)

Switch the polarity of pedals connected to the RD-700.
This can be set individually for each of the Pedal jacks on the rear panel (FC1, FC2, DAMPER).
On some pedals, the electrical signal output by the pedal when it is pressed or released is the opposite of other pedals. If your pedal has an effect opposite of what you expect, set this parameter to Reverse.
If you are using a Roland pedal (that has no polarity switch), set this parameter to STANDARD.

Parameter	Value
Damper	STANDARD, REVERSE
FC1	
FC2	

Setting the Keyboard Touch (Key Touch)

You can make advanced settings for the touch used for the keys.

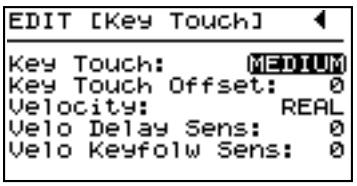
How to Make Settings

1. Press [EDIT], getting the indicator to light.

The Edit Menu screen appears.

2. Press CURSOR [▲]/[▼] to select "1.Key Touch."

3. Press CURSOR [▶] to display the Edit screen.



4. Press CURSOR [▲] or [▼] to move the cursor to the parameter to be set.

5. Press [INC/YES] or [DEC/NO] to set the value.

6. When you have finished making the settings, press [EDIT], extinguishing its indicator.

You are returned to the Tone screen.

Changing the Key Touch (Key Touch)

The setting below allows you to adjust the response you get from the keyboard when you finger the keys.

Parameter	Value	Description
Key Touch	SUPER LIGHT	An even lighter setting than LIGHT.
	LIGHT	This sets the keyboard to a light touch. You can achieve fortissimo (ff) play with a less forceful touch than usual, so the keyboard feels lighter. This setting makes it easy to play, even for children.
	MEDIUM	This sets the keyboard to the standard touch. You can play with the most natural touch. This is the closest to the touch of an acoustic piano.
	HEAVY	This sets the keyboard to a heavy touch. You have to finger the keyboard more forcefully than usual in order to play fortissimo (ff), so the keyboard touch feels heavier. Dynamic fingering adds even more feeling to what you play.
	SUPER HEAVY	An even heavier setting than HEAVY.

NOTE

This setting is switched automatically according to the value of Key Touch Offset, which follows.

Making Fine Adjustments to the Keyboard Touch (Key Touch Offset)

This setting provides even more precise adjustment of the key touch than available with the Key Touch setting alone. This allows you to get ten levels of adjustment between Key Touch settings values.

Parameter	Value	Description
Key Touch Offset	-10– +9	The touch sensitivity becomes heavier as the value increases.

NOTE

When this settings value continues into the positive or negative direction, the Key Touch's five-step value is switched automatically in accordance with that value.

Setting a Constant Volume Level in Response to the Playing Force (Velocity)

This sets the sound to play at a fixed volume, regardless of the strength used to play the keyboard (the velocity).

Parameter	Value	Description
Velocity	REAL	Volume levels and the way sounds are played change in response to the velocity.
	1–127	Values for the volume and the way sounds are played remain constant.

Changing the Timing of Sounds in Response to the Velocity (Velocity Delay Sens)

This sets the interval from the time the key is played to when the sound is produced.

As the value is increased, the timing of the sound is delayed more when more force is used to play the keys.

Parameter	Value
Velo Delay Sens	-63–+63

Changing the Touch Sensitivity According to the Key Range (Velocity Keyfollow Sens)

This setting changes the touch sensitivity according to the key range being used.

As the value is increased, the touch becomes heavier in the upper registers, and lighter in the lower keys.

Parameter	Value
Velo Keyfolw Sens	-63–+63

Pedal, [CONTROL] Knob, and Equalizer Settings (Control/EQ)

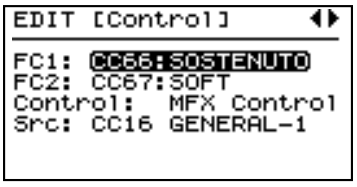
You can change the functions assigned to the pedals and [CONTROL] knob and change the equalizer settings.

How to Make Settings

1. Press [EDIT], getting the indicator to light.
   The Edit Menu screen appears.

2. Press CURSOR [▲]/[▼] to select "2.Control/EQ."

3. Press CURSOR [▶] to display the Edit screen.



4. Press CURSOR [◀] or [▶] to switch screens, and press CURSOR [▲] or [▼] to move the cursor to the parameter to be set.

5. Press [INC/YES] or [DEC/NO] to set the value.

6. When you have finished making the settings, press [EDIT], extinguishing its indicator.
   You are returned to the Tone screen.

Assigning Functions to Pedals (FC1/FC2)

This setting determines the function of the pedal switches or expression pedals (such as the optional EV-5) that are connected to the FC1 and FC2 jacks on the rear panel.

Parameter	Value	Function/Parameter Setting Changed
FC1 FC2	OFF	No control
	CC01-CC31, CC33-CC95	Controller Numbers 1–31, 33–95
	96: PITCH BEND	Applies the same effect (pitch bend) obtained by tilting the bender to the left and right.
	97: AFTER TOUCH	After Touch
	98: OCT-UP	Each pedal press raises the key range in octave steps (up to 3 octaves higher).
	99: OCT-DOWN	Each pedal press lowers the key range in octave steps (up to 3 octaves lower).
	100: START/STOP	Starts/Stops the external sequencer.
	101: TAP TEMPO	The tempo will be modified to the interval at which you press the pedal.
	102: RHY PLY/STP	Starts and stops Rhythms (p. 51).
	103: RHYTHM TYPE	Switches the rhythm variations (p. 82).
	104: ARPEGGIO SW	Performs the same function as [ARPEGGIO]. Switches the Arpeggio (p. 49) on and off.
	105: MFX ON/OFF	Performs the same function as MULTI EFFECTS [ON/OFF]. Switches the multi-effects (p. 53) on and off.
	106: CONTROL SRC	Transmitting the same MIDI messages as the Src settings (p. 74).

Changing the [CONTROL] Knob Settings (Control/Src)

Normally, the [CONTROL] knob is used for making settings that adjust the multi-effects (MFX Control), but they can also be used for settings that change the way tones are played or the tempo.

Parameter	Value	Description
Control	OFF	
	MFX CONTROL	The [CONTROL] knob adjusts the amount of multi-effect applied.
	TONE CONTROL	The [CONTROL] knob changes the way tones are played.
	TEMPO CONTROL	The [CONTROL] knob changes the tempo.
Src	CC1–CC31, CC33–CC95, 96: PITCH BEND, 97: AFTER TOUCH	This setting determines the MIDI messages that will be used for transmitting the settings of the [CONTROL] knob. MIDI messages are not transmitted when TEMPO CONTROL is selected for the Control.

NOTE

When TONE CONTROL is assigned to Control, you cannot change the parameters affected by the [CONTROL] knob. The parameters that are changed are predetermined for each individual Tone.
Additionally, effects may not be applied to some Tones (for example GM Tones).

MEMO

When Control is set to TONE CONTROL, turning the [CONTROL] knob changes the way the tone is played, regardless of whether MULTIEFFECT [ON/OFF] is switched on or off.

Changing the Equalizer Frequency Settings (Freq/Q)

This changes the EQUALIZER knob frequency settings.

Parameter	Value	Description
EQ Low Freq	200, 400 Hz	Selects the frequency for the low-frequency equalizer. This generally changes the level of the frequency range extending below this point.
EQ Mid Freq	200, 250, 315, 400, 500, 630, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz	Set Frequency Point for the mid-frequency equalizer. Changes the level of the selected frequency range, with frequency selected here at the center.
EQ Mid-Q	0.5, 1.0, 2.0, 4.0, 8.0	Adjusts the "Q" (bandwidth) of mid-frequency equalization. The higher the value, the narrower the range of frequencies that are affected.
EQ High Freq	2000, 4000, 8000 Hz	Selects the frequency for the low-frequency equalizer. This generally changes the level of the frequency range extending above this point.
<Band>	LOW, MID, HIGH	Selects the frequency range for the Gain setting. Corresponds to the LOW, MID, and HIGH EQUALIZER knobs.
Gain	-12.0–+12.0 dB (0.2 dB steps)	The gain of the range determined by <Band> can be changed. You can also change this value by turning the [EQUALIZER] knob.

NOTE

With the System's EQ Control set to SYSTEM (p. 70), you cannot change the above parameters. "---" appears in the screen.

Simulating the Creation of Organ Tones (Tone Wheel Mode)

When any of the "Tone Wheel 1–10" Tones is selected for any of the Local Parts (UPPER1, UPPER2, LOWER), you can perform in "Tone Wheel mode," in which the creation of organ sounds is simulated.

An organ features nine "harmonic bars" that can be drawn in and out, and by using the bars in different combinations of positions, a variety of different tones can be created. Different "Feet" are assigned to each bar, with the pitches of the sounds being determined by these "Feet."

You can simulate the creation of tones using the harmonic bars by assigning Feet to the PART LEVEL sliders.

While there are only four PART LEVEL sliders, you can switch the Feet setting by turning the PART SWITCH buttons on and off, thus allowing you to assign eight Feet settings to the sliders.

What Are "Feet?"

Feet basically refers to the lengths of pipe used in pipe organs. The length of pipe used to produce the reference pitch (the fundamental) for the keyboard is eight feet. Reducing the pipe to half its length produces a pitch one octave higher; conversely, doubling the pipe length creates a pitch one octave lower. Therefore, a pipe producing a pitch one octave below that of the reference of 8′ (eight feet) would be 16′; for one octave above the reference, the pipe would be 4′, and to take the pitch up yet another octave it would be shortened to 2′.

1. Bring up the Tone screen (p. 32).

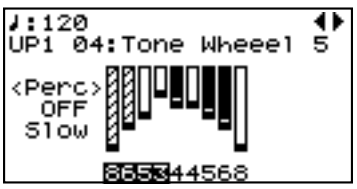
If the Tone screen is not currently displayed, press [EDIT] or [MIDI TX] so that the indicator is turned off.

2. In the Tone screen, select an [ORGAN] "Tone Wheel 1–10" Tone for one of the Parts.

3. Press the CURSOR [◀] button.

The following Tone Wheel screen appears.

This Tone Wheel screen appears only when a Tone Wheel Tone is selected for one of the Parts in the Tone screen.



4. Press a TONE SELECT button to select one of the Tone Wheels from 1 through 10.

While the Tone Wheel screen is displayed, the TONE SELECT buttons provide for selection among Tone Wheels 1–10.

5. When the PART LEVEL sliders are moved, the harmonic bars move in the display, and the tone changes.

By pressing the PART SWITCH buttons on and off, you can adjust the sounds for other Feet.

If the cursor is moved to the value at the bottom of the screen, you can adjust the sounds for Feet with [DEC/NO] and [INC/YES].

6. Press CURSOR [▲]/[▼] to move the cursor to <Perc> and press [DEC/NO] or [INC/YES] to change the value.

Perc (Percussion) adds an attack-type sound to the beginning of the note to give the sound more crispness. The attack sound changes according to the value.

NOTE

The Percussion is applied only to the UPPER1 Tone.

Settings	Description
OFF	No percussion is added.
2nd	Percussion sounds at a pitch one octave above that of the key pressed.
3rd	Percussion sounds at a pitch an octave and a fifth above that of the key pressed.
Slow	The percussion's attenuation time is lengthened. This softens the sense of attack.
Fast	The percussive sound will decay more quickly. This gives more of a sense of attack for a sharp sound.

MEMO

The settings changed here are stored to each Tone.
Even when you exit from Tone Wheel mode, you can press [ORGAN] to select the Tone with the changed settings.

Changing the Undulation of the Organ Tone (Rotary Effect)

While the Tone Wheel screen is displayed, you can change the undulation rate of the Rotary effect with the Pitch Bend lever.

The Rotary effect is an effect that recreates the sound of the rotating speakers used to augment the sound of an organ.

The Rotary effect is set to alternately rotate more rapidly or slowly when the Pitch Bend lever is moved to the left and right; the direction is not fixed.

MEMO

This Pitch Bend Lever setting is effective only in the Tone Wheel screen.

Changing the PART LEVEL Slider Feet Assignments (Harmonic Bar)

You can change the Feet assigned to each of the PART LEVEL sliders used in Tone Wheel mode.

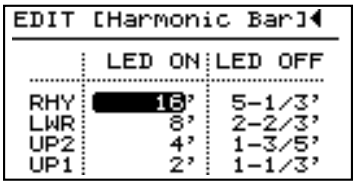
1. Press [EDIT], getting the indicator to light.

The Edit Menu screen appears.

2. Press CURSOR [▲]/[▼] to select "2.Control/EQ."

3. Press CURSOR [▶] to display the Edit page.

Feet Assignments in the Tone Wheel Screen



4. Press CURSOR [▲] [▼] [◀] [▶] to move the cursor to the parameter for changing the Feet.

"LED ON" and "LED OFF" in the screen indicate whether PART SWITCH is switched on or off.

Parameter	Value
RHY	16', 5-1/3', 8', 4', 2-2/3, 2', 1-3/5', 1-1/3', 1'
LWR	
UP2	
UP1	

5. Press [INC/YES] or [DEC/NO] to select the Feet.

6. When you have finished making the settings, press [EDIT], extinguishing its indicator.

You are returned to the Tone screen.

Setting the Multi-Effects, Reverb, and Chorus Effects (MFX/Reverb/Chorus)

The RD-700 contains three effects processors: multi-effects, chorus, and reverb. Settings can be made separately for each effects processor.

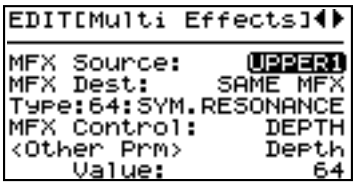
How to Make Settings

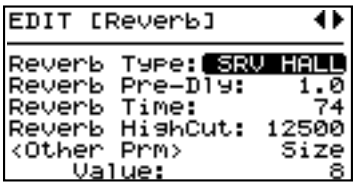
1. Press [EDIT], getting the indicator to light.

The Edit Menu screen appears.

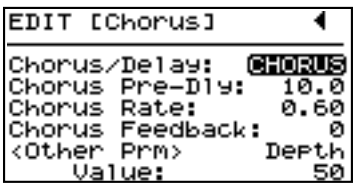
2. Press CURSOR [▲]/[▼] to select "3.MFX/Reverb/Chorus."

3. Press CURSOR [▶] to display the Edit screen.

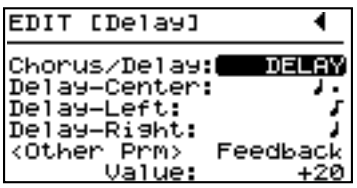




"CHORUS" Settings Screen



"DELAY" Settings Screen



4. Press CURSOR [◀] or [▶] to switch screens, and press CURSOR [▲] or [▼] to move the cursor to the parameter to be set.
5. Press [INC/YES] or [DEC/NO] to set the value.
6. When you have finished making the settings, press [EDIT], extinguishing its indicator.

   You are returned to the Tone screen.

Making Multi-Effects Settings

The Multi-effects are multi-purpose effects that completely change the sound type by changing the sound itself. Contained are 65 different effects types; select and use the type that suits your aims. In addition to effects types composed of simple effects such as Distortion, Flanger, and other such effects, you can also set up a wide variety of other effects, even connecting effects in series or in parallel. Additionally, while some multi-effects types feature chorus and reverb, the reverb (p. 78) and chorus (p. 78) effects discussed later in this volume are handled separately.

MFX Source, MFX Dest

On the RD-700, the MFX Type can be stored along with the tones assigned to each part.

These settings determine which multi-effects are used, as well as the part to which the multi-effects are applied.

Parameter	Value	Description
MFX Source	FIXED	The multi-effect doesn't change even when you switch to a different tone. This setting is convenient when you want to use the same multi-effect, even when changing tones.
	UPPER1, UPPER2, LOWER, RHYTHM	The MFX Type of the Tone assigned to the selected part is applied.
MFX Dest	SOURCE PART	The multi-effect is applied only to the part selected in MFX Source.
	SAME MFX	The multi-effect is applied to parts assigned the same multi-effect as the part selected in MFX Source.
	ALL PART	The multi-effects are applied to all parts.

NOTE

When MFX Source is set to FIXED, the MFX Dest setting is fixed at ALL PART, and the multi-effects are applied to all parts.

Type

Select the Multi-Effects Type.

There are 65 different multi-effects available. Refer to the **"Effect/Parameter List"** (p. 104).

NOTE

When MFX Source is set to UPPER1, UPPER2, LOWER, or RHYTHM, the Tone Edit MFX Type settings (p. 80) also change.

MFX Control

You can make changes to the multi-effect parameters in real time with the [CONTROL] knob. Here, select the parameter to be changed.

The parameters that can be changed vary with the different multi-effects selected in Type.

The available choices depend on the Type setting. Refer to the **"Effect/Parameter List"** (p. 104).

<Other Prm>, Value

You can make more detailed the multi-effect parameters. When Other Prm is selected, the indication of the corresponding Value changes, and the value is set. Refer to the **"Effect/Parameter List"** (p. 104).

NOTE

Multi-effects are not applied to parts that have the Internal Part Prm MFX Switch set to "OFF" in Edit mode.

MEMO

With some types of multi-effects, lowering the volume of the Part to which the multi-effects are added may end up changing the amount of the effect applied. In such cases, adjust the MFX <Other Prm> Level.

NOTE

Some multi-effects have parameters that can be specified in terms of a note value (for example, the STEP RATE parameter of 16: STEP FLANGER). When such parameters are assigned to MFX Control and <Other Prm>, and a note value has been supplied for the value, you won't be able to change the value using the [CONTROL] knob. If you want to change the value with the knob, use numeric values when making settings.

MEMO

Use caution before setting the Feedback parameter to its maximum or minimum values, since such settings may cause the sound to play continuously.

Making Reverb Settings

Reverb adds the reverberation characteristics of halls or auditoriums. Four different types are offered, so you can select and use the type that suits your purpose.

MEMO

You can set the amount of reverb applied separately for each individual part (p. 80).

Reverb Type

When you change the Reverb Type, the Reverb parameters will be automatically adjusted to the optimal values. Rather than setting the reverb parameters one by one, you can make the settings more easily by first setting the Reverb Type and then changing only the necessary parameters.

Parameter	Value	Description
Reverb Type	OFF	Reverb is not used.
	REVERB	Normal Reverb
	SRV ROOM	Simulates the reverberation of room interiors. It produces a well-defined and spacious reverberation.
	SRV HALL	Simulates the reverberation exhibited by hall. It provides a deeper reverberation than the Room reverbs.
	SRV PLATE	Simulates a plate reverb unit (a type of artificial reverb that utilized a metal plate).

MEMO

Some Reverb Type settings have parameters that cannot be set. Parameters that cannot be changed are indicated by "——."

Reverb Pre-Delay

Adjust the time delay from when the direct sound begins until the reverb sound is heard.

The delay time increases as the value is raised.

Values: 0.0–100.0

Reverb Time

Adjust the time length of reverberation.

The reverberation becomes longer as the value is increased.

Values: 0–127

Reverb High Cut Frequency

This sets the frequency above which the high-frequency content of the reverb will be reduced. If you do not wish to cut the high range of the returned sound, select BYPASS.

Values: 160, 200, 250, 320, 400, 500, 640, 800, 1000, 1250, 1600, 2000, 2500, 3200, 4000, 5000, 6400, 8000, 10000, 12500, BYPASS

<Other Prm>, Value

You can make more detailed reverb settings.

When Other Prm is selected, the indication of the corresponding Value changes, and the value is set.

Refer to **"REVERB"** (p. 134).

Setting Chorus and Delay

Chorus adds depth and spaciousness to the sound. You can select whether to use this as a chorus effect or a delay effect.

MEMO

You can set the amount of chorus applied separately for each Tone (p. 80).

Chorus/Delay

You can select whether to use this as a chorus effect or a delay effect.

Values: Chorus, Delay

When Chorus/Delay is Set to Chorus

Chorus Pre-Delay

Specifies the delay time from the original sound until when the chorus sound is heard.

The delay time increases as the value is raised.

Values: 0.0–100.0

Chorus Rate

Specifies the modulation frequency of the chorus sound.

The interval between undulations is shortened as this value is increased.

Values: 0.05–10.00

Chorus Feedback

Sets the level at which the chorus sound is re-input (fed back) into the chorus. By using feedback, a denser chorus sound can be created.

Higher values result in a greater feedback level.

Values: 0–127

<Other Prm>, Value

You can make more detailed chorus settings.

When Other Prm is selected, the indication of the corresponding Value changes, and the value is set.

Refer to **"CHORUS"** (p. 134).

When Chorus/Delay is Set to Delay

Delay-Center

The delay time increases as the value is raised.

Values: 0–1000 (ms), Beat

Delay-Left

This sets the delay time for the delay located at the left side of the stereo field.

Values: 0–1000 (ms), Beat

Delay-Right

This sets the delay time for the delay located at the right side of the stereo field.

Values: 0–1000 (ms), Beat

MEMO

Delay Center, Delay Left and Delay Right can be specified as note value lengths for a specific tempo. In this case, specify the value of the desired note.

<Other Prm>, Value

You can make more detailed delay settings.

When Other Prm is selected, the indication of the corresponding Value changes, and the value is set.

Refer to **"DELAY"** (p. 134).

Making Tone Settings (Tone Edit)

You can make more detailed settings to the tones assigned to each of the Internal parts.

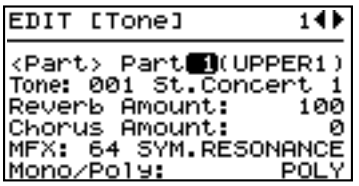
NOTE

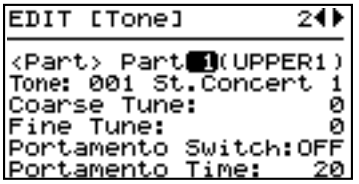
In certain selected Tones, there may be parameters that cannot be changed.

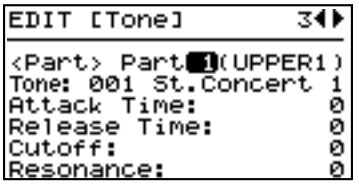
How to Make Settings

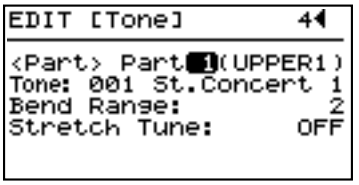
1. Press [EDIT], getting the indicator to light.
   The Edit Menu screen appears.

2. Press CURSOR [▲]/[▼] to select "4.Tone Edit."
3. Press CURSOR [▶] to display the Edit screen.









4. Press CURSOR [◀] or [▶] to switch screens, and press CURSOR [▲] or [▼] to move the cursor to the parameter to be set.
5. Press [INC/YES] or [DEC/NO] to set the value.
6. When you have finished making the settings, press [EDIT], extinguishing its indicator.
   You are returned to the Tone screen.

Selecting the Part to Be Set (<Part>, Tone)

Choose the Part for which you want to make settings.

Parameter	Value
<Part>	1–16 Parts assigned to the Local parts are indicated by a marker (UPPER1) appearing after the part name.
Tone	When the part to be set is selected, the name of the assigned tone appears. You can select tone using the TONE SELECT buttons.

Setting the Reverb/Chorus Depth (Reverb/Chorus Amount)

This sets the depth of the reverb and chorus effects.

NOTE

When this value is set to "0," no reverb or chorus effect is applied when the REVERB or CHORUS knob is turned.

Parameter	Value
Reverb Amount	0–127
Chorus Amount	0–127

How to apply the Reverb/Chorus Amount

The manner in which the effect is applied will differ depending on the settings for MFX Source and MFX Dest (p. 77).

- When MFX Dest is set to ALL PART

  The Reverb/Chorus Amount setting for the part selected for MFX Source applies to all parts. However, when the MFX Source is set to FIXED, the Reverb/Chorus Amount setting for UPPER 1 applies to all parts.

- When MFX Dest is set to SAME MFX

  The Reverb/Chorus Amount setting for the part selected for MFX Source applies to parts assigned the same MFX Type as the part selected for MFX Source.

Changing the Effect Applied to the Tone (MFX)

This sets the multi-effect applied to the tone.

NOTE

The MFX selected here may not be applied with certain MFX Source and MFX Dest settings.
For details, refer to **"MFX Source, MFX Dest"** (p. 77).

Parameter	Value
MFX	Refer to the **"Effect/Parameter List"** (p. 104).

Playing Sound Monophonically (Mono/Poly)

Specifies whether the tone will play polyphonically (POLY) or monophonically (MONO).
The MONO setting is effective when playing a solo instrument tone such as sax or flute.
Additionally, when this is set to MONO/LEGATO, you can have monophonic performances played legato. Legato is a playing style in which the spaces between notes are smoothed, creating a flowing feel with no borders between the notes. This creates a smooth transition between notes, which is effective when you wish to simulate the hammering-on and pulling-off techniques used by a guitarist.

Parameter	Value	Description
Mono/Poly	MONO	Only the last-played note will sound.
	POLY	Two or more notes can be played simultaneously.
	MONO/ LEGATO	Legato is applied to monophonic performances.

Changing the Pitch (Coarse/Fine Tune)

This sets the pitch of the tone.

Parameter	Value	Description
Coarse Tune	-48– +48 (+/- 4 octaves)	Sets the sound's pitch in semitone units.
Fine Tune	-50– +50 (+/- 50 cents)	Sets the sound's pitch in units of one cent.

MEMO

1 cent = 1/100 semitone

NOTE

With some Tones, there may be ranges in which the pitch does not change as intended.

Creating Smooth Pitch Changes (Portamento Switch/Time)

Portamento is a function that causes the pitch to change smoothly from one note to the next note played.

With the Mono/Poly parameter set to Mono, portamento is especially effective when simulating playing techniques such as a violin glissandos.

The Portamento Time setting determines the time for the change in pitch when the portamento effect is applied to the sound. Higher settings will cause the pitch change to the next note to take more time.

Parameter	Value
Portamento Switch	ON, OFF
Portamento Time	0–127

Changing Tone Elements

You can make changes in tones by adjusting the settings of the following four elements.

Attack Time:

The time it takes after the key is pressed for a sound to reach full volume.

Release Time:

The time it takes after the key is released for a sound to become inaudible.

Cutoff:

Adjusts how much the filter is opened.

Resonance:

Emphasizes the overtones in the region of the cutoff frequency, adding character to the sound. Excessively high settings can produce oscillation, causing the sound to distort.

NOTE

Making abrupt changes in the settings values may cause the sound to become distorted or overly loud. Carefully monitor volume levels while making the settings.

Parameter	Value	Description
Attack Time	-63– +63	Higher values produce a milder attack; lower values produce a sharper attack.
Release Time	-63– +63	Higher values produce longer decay; set lower values for a clear-cut sound
Cutoff	-63–+63	Higher values brighten the sound; lower values make the sound seem darker.
Resonance	-63–+63	Higher value makes the special quality of the sound stronger; lower value reduce these characteristics.

NOTE

With some Tones, the effect does not work as intended.

Changing the Bend Range (Bend Range)

This sets the amount of pitch change that will occur when you move the Pitch Bend lever (2 octaves).

Parameter	Value
Bend Range	0–24

Precise Modification of Chord Sonorities (Stretch Tune)

Changes the pitch using the 'stretch tuning' method typically used on acoustic pianos. This makes high-range sounds slightly higher in pitch, and low-range sounds slightly lower in pitch.

With a setting of OFF, the Patch's tuning will be equal temperament. A setting of 3 will produce the greatest difference in the pitch of the low and high ranges.

Parameter	Value	Description
Stretch Tune	OFF	This is the standard tuning curve.
	1	This tuning curve expands the bass and treble ends somewhat (Stretch Tuning). It is suitable for performances such as piano solos.
	2	
	3	

Making the Rhythm Settings (Rhythm Pattern)

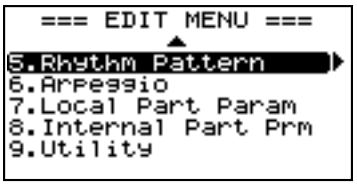
The RD-700 features internal drum patterns complementing Jazz, Rock, and other various musical genres. This kind of drum pattern is called a "Rhythm."

MEMO

For more about switching Rhythms on and off, refer to **"Playing Rhythm ([RHYTHM])"** (p. 51).

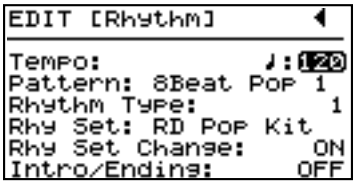
How to Make Settings

1. Press [EDIT], getting the indicator to light.
   The Edit Menu screen appears.



2. Press CURSOR [▲]/[▼] to select "5.Rhythm."

3. Press CURSOR [▶] to display the Edit screen.



4. Press CURSOR [▲] or [▼] to move the cursor to the parameter to be set.

5. Press [INC/YES] or [DEC/NO] to set the value.

6. When you have finished making the settings, press [EDIT], extinguishing its indicator.
   You are returned to the Tone screen.

Adjusting the Tempo (Tempo)

Specify the tempo of the Rhythm.

NOTE

The RD-700 has only one tempo setting. Once you change the setting, the tempo indicated in the Tone screen and the tempo setting for the arpeggiator (p. 84) both change.

Parameter	Value
Tempo	20–250

MEMO

With Clock Source (p. 70) set to MIDI, "M:" appears in the display, and the RD-700 is synchronized to the tempo of the external MIDI device. The tempo cannot be changed with the RD-700 when "M:" is indicated.

Changing Patterns (Pattern)

This selects the rhythm pattern. Select from 85 options.

When this is set to OFF, the Rhythm does not sound, even if PART SWITCH [RHYTHM] is pressed.

Parameter	Value
Pattern	Refer to **"Rhythm Pattern List"** (p. 143).

MEMO

You can also change a rhythm's pattern in the "Rhythm/Arpeggio screen" (p. 32).

MEMO

When you change Patterns while a Rhythm is being played back, the change to the new Pattern is made at the following measure.

Selecting Rhythm Variations (Rhythm Type)

Each Rhythm pattern features two variations that make up each variation different percussion sounds.

Type 1 offering the simple Rhythm, and Type 2 featuring the elaborate Rhythm.

Parameter	Value
Rhythm Type	1, 2

MEMO

When this is set to 2, a " 2 " is displayed in the upper right of each screen.

MEMO

You can assign this function to a pedal and use the pedal to control the function. For details, refer to **"Assigning Functions to Pedals (FC1/FC2)"** (p. 73).

MEMO

When the Type is changed while a Rhythm is being played back, a one-measure fill-in (short Phrase) is inserted, then the new Type is played.

Changing the Drum Set (Rhy Set)

You can change a rhythm's drum set (set of drum and percussion tones).

Parameter	Value
Rhy Set	Refer to **"Tone List"** (p. 135).

MEMO

You can select Tones other than Rhythm Sets.

MEMO

When this setting is changed, the Part 10 Tone also changes.

NOTE

Depending on the Rhythm Set that is selected, the Rhythm Set may not play back properly.

Changing the Pattern Without Changing the Drum Set (Rhy Set Change)

Each Rhythm in a rhythm pattern has the most suitable drum set assigned to it. When rhythm patterns are changed, the drum sets also switch, so the tone is changed, but here the drum set stays constant and does not change.

Parameter	Value	Description
Rhy Set Change	ON	When the Rhythm is changed, the drum set also changes.
	OFF	When the Rhythm is changed, the drum set does not change.

Switching the Intro and Ending On or Off (Intro/Ending)

These settings determine whether a Rhythm's intro and ending play (ON), or don't (OFF).

Parameter	Value	Description
Intro/Ending	ON	The rhythm's intro and ending are included.
	OFF	The rhythm's intro and ending are not included.

Making Arpeggio Settings (Arpeggio)

The function that allows you to perform arpeggios (chords whose notes are played sequentially rather than together) from a chord's constituent notes, just by playing the chord, is called "Arpeggiater."

You can make more detailed arpeggio settings, including tempo and range.

MEMO

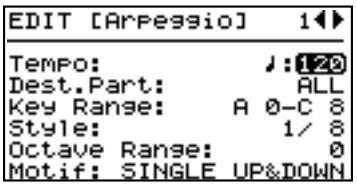
For more on switching the Arpeggiator on and off, refer to **"Creating Arpeggios from the Chords You Play ([ARPEGGIO])"** (p. 49).

How to Make Settings

1. Press [EDIT], getting the indicator to light.
   The Edit Menu screen appears.

2. Press CURSOR [▲]/[▼] to select "6.Arpeggio."

3. Press CURSOR [▶] to display the Edit screen.



4. Press CURSOR [◀] or [▶] to switch screens, and press CURSOR [▲] or [▼] to move the cursor to the parameter to be set.

5. Press [INC/YES] or [DEC/NO] to set the value.

6. When you have finished making the settings, press [EDIT], extinguishing its indicator.
   You are returned to the Tone screen.

Adjusting the Tempo (Tempo)

This sets the speed of the arpeggio.

NOTE

The RD-700 has one tempo setting. You can change this setting in the tempo display in the Tone screen; or alternatively, you can change the rhythm's tempo setting (p. 82).

Parameter	Value
Tempo	20–250

MEMO

With Clock Source (p. 70) set to MIDI, "M:" appears in the display, and the RD-700 is synchronized to the tempo of the external MIDI device. The tempo cannot be changed with the RD-700 when "M:" is indicated.

Selecting Parts to Play Arpeggios (Dest. Part)

This setting selects the part that is to play arpeggios when the RD-700 is in Split mode or Layer mode (p. 41).

Parameter	Value
Dest.Part	UPPER1, UPPER2, LOWER, ALL

MEMO

When transmitting arpeggio performances from the MIDI OUT connector, set this to "ALL."

Setting the Key Range for the Arpeggio Performances (Key Range)

You cannot perform in the normal manner in the range set for arpeggio performances, but you can specify the range used for the arpeggios, which even allows you, for example, to split the keyboard in Single mode (p. 41) and play arpeggios as accompaniment in the left side, and the melody in the right.

Specify the leftmost and rightmost keys in the range to be used for arpeggios.

Parameter	Value
Key Range	A0–C8

Setting the Way Arpeggios are Played (Style)

This sets the style of the arpeggio. Select from the following 45 options.

Parameter	Value	Description
Style	1/4	The rhythm will be divided in quarter notes.
	1/6	The rhythm will be divided in quarter note triplets.
	1/8	The rhythm will be divided in eighth notes.
	1/12	The rhythm will be divided in eighth note triplets.
	1/16	The rhythm will be divided in 16th notes.
	1/32	The rhythm will be divided in 32nd notes.
	PORTAMENTO A, B	A style using the portamento effect.
	GLISSANDO	A glissando style.
	SEQUENCE A–D	Styles for sequenced patterns.
	ECHO	An echo-like style.
	SYNTH BASS, HEAVY SLAP, LIGHT SLAP, WALK BASS	Styles appropriate for bass playing.
	RHYTHM GTR 1–5	Styles for guitar cutting. Styles 2–5 are effective when 3–4 notes are held.
	3 FINGER GTR	Three-finger guitar style.
	STRUM GTR UP, STRUM GTR DOWN, STRUM GTR UD	Guitar chords strummed both up and down. Effective when 5–6 notes are held.
	PIANO BACK., CLAVI CHORD	Styles for keyboard instrument backing.
	WALTZ, SWING WALTZ	Styles in triple meter.

Parameter	Value	Description
Style	REGGAE	A reggae-type style. Effective when 3 notes are held.
	PERCUSSION	Style effective for percussive instruments.
	HARP	The playing style of a harp.
	SHAMISEN	The playing style of a Shamisen.
	BOUND BALL	A style suggestive of a bouncing ball.
	RANDOM	A style in which the notes sound in random order.
	BOSSA NOVA	Rhythmic strumming of the guitar in bossa nova style. Hold 3–4 notes for best results. You can increase the tempo and use this as a Samba.
	SALSA	Typical salsa style. Hold 3–4 notes for best results.
	MAMBO	Typical mambo style. Hold 3–4 notes for best results.
	LATIN PERC	A rhythm style with Latin percussion instruments such as Clave, Cowbell, Clap, Bongo, Conga, Agogo etc.
	SAMBA	Typical samba style. Use for rhythm patterns or bass lines.
	TANGO	Typical tango rhythm style. Hold the root, 3rd and 5th of a triad etc. for best results.
	HOUSE	A style for house piano backing. Hold 3–4 notes for best results.
	LIMITLESS	The settings of all parameters can be freely combined without restriction.

Changing the octave range in arpeggio style (Octave Range)

Sets the key range in octaves over which arpeggio will take place.

If you want the arpeggio to sound using only the notes that you actually play, set this parameter to 0.

To have the arpeggio sound using the notes you play and notes 1 octave higher, set this parameter to +1. A setting of -1 will make the arpeggio sound using the notes you play and notes 1 octave lower.

Parameter	Value
Octave Range	-3–+3

Changing the Order in Which Notes Are Played (Motif)

Set the order to play the notes for the keys pressed from the following.

NOTE

Depending on the Style settings (p. 84), some choices may not be available. For details on the possible values, refer to **"Arpeggio Style List"** (p. 142).

Param	Value	Description
Motif	SINGLE UP	Notes you press will be sounded individually, beginning from low to high.
	SINGLE DOWN	Notes you press will be sounded individually, beginning from high to low.
	SINGLE UP& DOWN	Notes you press will be sounded individually, from low to high, and then back down from high to low.
	SINGLE RANDOM	Notes you press will be sounded individually, in random order.
	DUAL UP	Notes you press will be sounded two at a time, beginning from low to high.
	DUAL DOWN	Notes you press will be sounded two at a time, beginning from high to low.

Param	Value	Description
Motif	DUAL UP& DOWN	Notes you press will be sounded two at a time, from low to high, and then back down from high to low.
	DUAL RANDOM	Notes you press will be sounded two at a time, in random order.
	TRIPLE UP	Notes you press will sound three at a time, from low to high.
	TRIPLE DOWN	Notes you press will sound three at a time, from high to low.
	TRIPLE UP& DOWN	Notes you press will sound three at a time, from low to high and then back down from high to low.
	TRIPLE RANDOM	Notes you press will sound three at a time, in random order.
	NOTE ORDER	Notes will sound in the order that they were pressed. Up to 32 notes can be stored, so you can create melody lines by pressing keys in the appropriate order.
	GLISSAN-DO	Notes will be played in an ascending and descending chromatic scale between the lowest and the highest keys that are pressed. Simply press two notes, the lowest and highest.
	CHORD	All notes that are pressed will sound simultaneously.
	BASS+ CHORD 1–5	The lowest of the notes you play will sound, and the remaining notes will sound as a chord.
	BASS+ UP 1–8	The lowest of the notes you play will sound, and the remaining notes will be arpeggiated.
	BASS+ RND 1–3	The lowest of the notes you play will sound, and the remaining notes will sound in random order.
	TOP+UP 1–6	The highest of the notes you play will sound, and the remaining notes will be arpeggiated.
	BASS+UP +TOP	Simulated fingering of folk guitar's three-finger picking technique.

Changing the Groove Feel (Beat Pattern/Accent Rate/Shuffle Rate)

Beat Pattern

Select the beat pattern from the choices below. This setting will affect the location of the accent and length of the notes to determine the beat (rhythm).

NOTE

Depending on the Style settings (p. 84), some choices may not be available. For details on the possible values, refer to **"Arpeggio Style List"** (p. 142).

Parameter	Value
Beat Pattern	1/4, 1/6, 1/8, 1/12, 1/16 1–3, 1/32 1–3, PORTA-A 01–11, PORTA-B 01–15, SEQ-A 1–7, SEQ-B 1–5, SEQ-C 1–2, SEQ-D 1–8, ECHO 1–3, MUTE 01–16, STRUM1–8, REGGAE1–2, REFRAIN1–2, PERC1–4, WALKBS, HARP, BOUND, RANDOM, BOSSA NOVA, SALSA 1–4, MAMBO 1–2, CLAVE, REV CLA, GUIRO, AGOGO, SAMBA, TANGO 1–4, HOUSE 1–2, 3/4, SWING 3/4

MEMO

When PORTA-A 01– 11 and PORTA-B 01– 15 are selected, you can use Portamento time (p. 81) to control the portamento attack. In this case, it is not necessary to have Portamento Sw set to ON.

Accent Rate

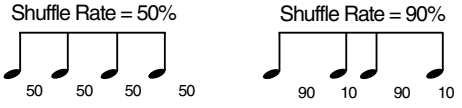
Modifies the strength of accents and the length of the notes to adjust the "groove" feel of the arpeggio. A setting of 100% will produce the most pronounced groove feel.

Parameter	Value
Accent Rate	0–100%

Shuffle Rate

This setting lets you modify the note timing to create shuffle rhythms. With a setting of 50%, the notes will sound at equal spacing. As this value is increased, the notes will become more "bouncy," as if they were dotted notes.

Parameter	Value
Shuffle Rate	50–90%



NOTE

If the Beat Pattern (p. 86) is 1/4, there will be no shuffle effect even if the Shuffle Rate value is increased.

Keeping the Force of the Notes Constant (Velocity)

This sets how strongly sounds are played when you press the keys.

Parameter	Value	Description
Velocity	REAL	Reproduces the actual strength of the keyboard touch.
	1–127	Sets the velocity at a fixed valued, regardless of the keyboard touch.

Continuing Arpeggios Even After the Keys Are Released (Arpeggio Hold)

When the hold setting is switched on, you can have arpeggios continue to play even after you release the keys.

Parameter	Value	Description
Arpeggio Hold	ON	Arpeggios continue to play even after the keys are released.
	OFF	Arpeggios stop playing when the keys are released.

MEMO

The [ARPEGGIO] indicator flashes when the Arpeggio Hold is set to ON.

Switching Hold On and Off with the Buttons

Even when not in the Edit screen, you can use the buttons to turn the Hold function on and off.

1. Hold down [ARPEGGIO] and press [TRANSPOSE].
   Hold is turned on or off each time the button is pressed.

Keyboard Part and Controllers Settings (Local Part Param)

The sixteen Parts played by the RD-700's internal sound generator are referred to as "Internal Parts."

Of the sixteen Internal Parts, you can select three of them to function as the three Parts (UPPER1, UPPER2, and LOWER) which can be freely controlled with the RD-700's buttons and keyboard. These three Parts are collectively known as the "Local Parts."

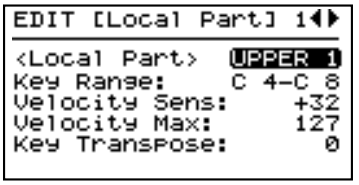
You can perform operations like Split and Layer with the Local Parts very simply using the RD-700's keyboard, and you can make more detailed settings for the Parts as well.

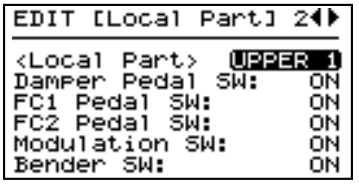
How to Make Settings

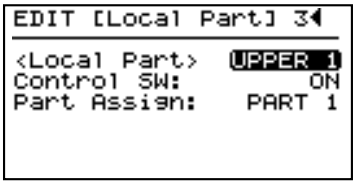
1. Press [EDIT], getting the indicator to light.
   The Edit Menu screen appears.

2. Press CURSOR [▲]/[▼] to select "7.Local Part Param."

3. Press CURSOR [▶] to display the Edit screen.







4. Press CURSOR [◀] or [▶] to switch screens, and press CURSOR [▲] or [▼] to move the cursor to the parameter to be set.

5. Press [INC/YES] or [DEC/NO] to set the value.
   You can set the "Key Range" by pressing the specified keys.

6. When you have finished making the settings, press [EDIT], extinguishing its indicator.

You are returned to the Tone screen.

Selecting the Part to Be Set (<Local Part>)

Choose the Local Part for which you want to make settings.

You can select the Local part by using the PART SELECT buttons.

Parameter	Value
<Local Part>	UPPER1, UPPER2, LOWER

Setting the Key Range for Each Part (Key Range)

When [SPLIT] is pressed in normal performance conditions, the key range is divided at the Split Point, and you can play with two different tones on one keyboard.

Using Key Range allows you to make even more detailed key range settings.

This sets the lower and upper limit of the key range in each part.

After moving the cursor to the parameter to be set, you can make the setting by pressing the designated key and [ENTER].

Parameter	Value
Key Range	A0–C8

NOTE

This is effective only when [SPLIT] is on (p. 43) in the key range settings.

NOTE

You cannot set the key range's lower limit higher than the upper limit, nor can you set the upper limit below the lower limit.

Setting the Change in Volume According to the Force Used to Play the Keyboard (Velocity Sens/Max)

This setting determines how the volume changes in response to the force used to play the keyboard (velocity) and the maximum value of the change.

NOTE

This setting is disregarded with certain tones.

Parameter	Value	Description
Velocity Sens	-63–+63	This setting determines how the volume changes in response to the velocity. The volume is increased as the keyboard is played with greater force when a positive Value is used; when a negative value is selected, the volume decreases as the keys are played with greater force. If this is set to "0," the volume will not be affected by the strength of your playing on the keyboard.
Velocity Max	1–127	This is the maximum value for the change in volume occurring in response to the velocity. Lowering this value will produce softer notes even if you play the keyboard strongly.

Setting the Transposition for Each Individual Part (Key Transpose)

You can perform with each part transposed to a different pitch.

When the Keyboard Mode is Layer, you can create a richer sound by setting the two Tones to different octaves. Also, if the Keyboard Mode is set to Split and you are playing a bass Tone in the lower Part, you can use the Key Shift function to play the bass at a lower pitch.

Parameter	Value
Key Transpose	-48–0–+48

MEMO

You can also set the same degree of transposition for all parts with [Transpose]. For details, refer to **"Transposing the Key of the Keyboard ([TRANSPOSE])"** (p. 46).

Turning the Controllers in Each Part On and Off

These settings determine whether the pedals connected to each PEDAL jack (Damper, FC1, FC2), the Modulation lever, the Bender, and the [CONTROL] knob are used to control the Parts (ON), or not (OFF).

Parameter	Value
Damper Pedal Sw	ON, OFF
FC1 Pedal Sw	
FC2 Pedal Sw	
Modulation Sw	
Bender Sw	
Control Sw	

Assigning Internal Parts to Local Parts (Part Assign)

This determines which internal parts are assigned to the Local parts.

Parameter	Value
Part Assign	1–16

Setting MIDI Receive Parts (Internal Part Prm)

The sixteen Parts played by the RD-700's internal sound generator are referred to as "Internal Parts."

When connecting an external MIDI device to a sequencer or other device, by assigning the Receive channel to an Internal Part you can receive MIDI messages from the external MIDI device and control the Internal Parts.

These parameters determine how each Part will receive MIDI messages.

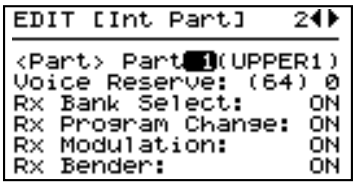
How to Make Settings

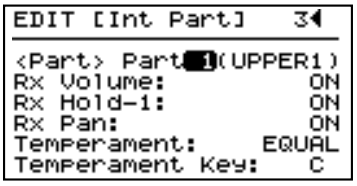
1. Press [EDIT], getting the indicator to light.

   The Edit Menu screen appears.

2. Press CURSOR [▲]/[▼] to select "8. Internal Part Prm."

3. Press CURSOR [▶] to display the Edit screen.





4. Press CURSOR [◀] or [▶] to switch screens, and press CURSOR [▲] or [▼] to move the cursor to the parameter to be set.

5. Press [INC/YES] or [DEC/NO] to set the value.

6. When you have finished making the settings, press [EDIT], extinguishing its indicator.

   You are returned to the Tone screen.

Selecting the Part to Be Set (<Part>, Tone)

Choose the Part for which you want to make settings.

Parameter	Value
<Part>	1–16 Parts assigned to the Local parts are indicated by a marker (UPPER1) appearing after the part name.
Tone	When the <Part> to be set is selected, the name of the assigned tone appears. You can select tone using the TONE SELECT buttons.

Setting the Receive Channel (Receive Channel)

When using MIDI messages from an external MIDI device to play the RD-700, set the Receive channels for each of the RD-700's parts so they're matched up with the channels that'll be used for transmission by the external MIDI device.

Parameter	Value
Receive Channel	1–16

Setting the Volume and Pan (Volume/Pan)

Sets the panning (localizes sound image) for each of the Tones.

The Volume setting is mainly used in the Split and Layer key modes to obtain the desired balance in volume between each part.

The Pan setting localizes the sound image of each part when the output is in stereo. With an increase in the value for L, more of the sound will be heard as coming from the left side. Similarly, more of the sound will originate at the right if the value of R is increased. When set to 0, the sound is heard as coming from the center.

Parameter	Value
Volume	0–127
Pan	L63–0–63R

Making the Effect ON/OFF Settings (MFX Switch)

This setting determines whether the multi-effects are applied (ON), or not (OFF).

For example, with the MFX Dest setting (p. 77) set to "ALL" (multi-effects are applied to all parts), multi-effects are not applied to the parts for which this is set to "OFF."

Parameter	Value
MFX Switch	ON
	OFF

Setting the Required Polyphony (Voice Reserve)

The RD-700 has a maximum polyphony (the number of sounds, or "voices" that can be produced simultaneously by the sound generator) of 128 voices.

This setting specifies the number of voices that will be reserved for each Part when more than 128 voices are played simultaneously. For example if Voice Reserve is set to 6 for Part 1, Part 1 will always have 6 notes of sound-producing capacity available to it even if a total of more than 128 notes (total for all Parts) are being requested.

You can make separate Voice Reserve settings for each individual Part.

Parameter	Value
Voice Reserve	0–64 * The figure in parentheses before the settings value shows the remaining number of voices that can be set. It is not possible for the settings of all Parts to total an amount greater than 64.

Setting Reception and Blocking of MIDI Messages from External MIDI Controllers

You can change the RD-700's tones by reception of MIDI messages generated through the actions of modulation levers, pedals, knobs, and other such external MIDI devices controls.

You can set whether to have the following MIDI messages received (ON), or not (OFF) individually in each part.

Parameter	Value
Rx.Bank Select	ON, OFF
Rx.Program Change	
Rx.Modulation	
Rx.Bender	
Rx.Volume	
Rx.Hold-1	
Rx.Pan	

Setting the Tuning Method (Temperament/Key)

This sets the tuning and keynote (tonic) for each part.

Most modern songs are composed and played with the assumption that equal temperament will be used, but when classical music was composed, there were a wide variety of other tuning systems in existence. Playing a composition with its original tuning lets you enjoy the sonorities of the chords that the composer originally intended.

When playing with tuning other than equal temperament, you need to specify the keynote for tuning the song to be performed (that is, the note that corresponds to C for a major key or to A for a minor key).

If you choose an equal temperament, there's no need to select a keynote.

Parameter	Value	Description
Temperament	EQUAL	Equal Temperament. This tuning divides an octave into 12 equal parts. Every interval produces about the same amount of slight dissonance. This setting is in effect when you turn on the power.
Temperament	JUST MAJ	Just (Major). This scale eliminates dissonance in fifths and thirds. It is unsuited to playing melodies and cannot be transposed, but is capable of beautiful sonorities.
	JUST MIN	Just (Minor). The scales of the major and minor just intonations are different. You can get the same effect with the minor scale as with the major scale.
	PYTHAGOREAN	This scale devised by the philosopher Pythagoras eliminates dissonance in fourths and fifths. Dissonance is produced by third-interval chords, but melodies are euphonious.
	KIRNBERGER	This scale is a modification of the meantone and just intonations that permits greater freedom in transposition to other keys. Performances are possible in all keys (III).
	MEAN TONE	This scale makes some compromises in just intonation, enabling transposition to other keys.
	WERCKMEISTER	This is a combination of the mean tone and Pythagorean scales. Performances are possible in all keys (first technique, III).
	ARABIC	Arabic Scale. This scale is suitable for Arabic music.
Temperament Key	C, C#, D, D#, E, F, F#, G, G#, A, A#, B	Sets the keynote.

Other Functions (Utility)

Utility includes functions for sending data to external MIDI sequencers and other devices and for restoring the settings to their original factory state.

MEMO

For more on "Rec Setting" in Utility menu, refer to **"Settings for Recording (Rec Setting)"** (p. 95).

Transferring the RD-700's Settings to an External MIDI Device (Bulk Dump)

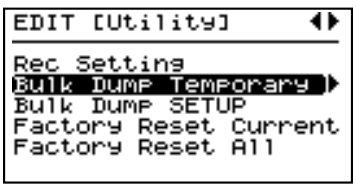
You can transfer the contents of Setups and the RD-700's system settings to an external MIDI device. This operation is called "bulk dump."

Use this procedure to save the data to an external MIDI device in situations such as when you want to perform by connecting another RD-700 with the same settings, or to prevent your Setups and system settings from corruption.

1. Use a MIDI cable (optional) to connect the RD-700's MIDI OUT connector to the MIDI IN connector on an external sequencer.
2. Press [EDIT] to turn it on.

   The Edit Menu screen appears.

3. Press CURSOR [▼] to select "9.Utility."
4. Press CURSOR [▶] to display the Edit screen.



5. Press CURSOR [▲] or [▼] to select "Bulk Dump Temporary" or "Bulk Dump SETUP."

Parameter	Value
Bulk Dump Temporary	The contents of the currently selected Setup are transmitted.
Bulk Dump SETUP	The contents of Setups in the specified range are transmitted.

NOTE

While the Bulk Dump is in progress, no sounds are produced even when the keys are pressed. In addition, Rhythms and arpeggios being played are also stopped.

Bulk Dump Temporary

6. Press CURSOR [▶].

   A screen like the one shown below appears.

7. Put the external sequencer in record mode.
8. Press [INC/YES] to transmit the settings.

   To cancel the Bulk Dump, press [DEC/NO].

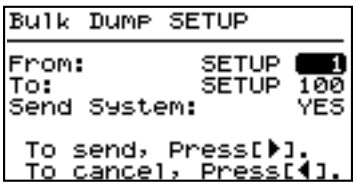
   The message "Now, Executing..." appears in the display during transmission of the data.
9. After the transmitting is finished, the display will indicate "COMPLETED."

   You are returned to the Edit screen.
10. Stop the external sequencer.

Bulk Dump SETUP

6 Press CURSOR [▶].

A screen like the one shown below appears.



Parameter	Value
From	Setup number for the first Setup to be transmitted.
To	Setup number for the last Setup to be transmitted.
Send System	Determines whether the system settings are to be transmitted (YES), or not (NO).

7. Press CURSOR [▲] / [▼] and [INC/YES]/[DEC/NO] to set the transmitted SETUPs.

8. Press CURSOR [▶].

A screen like the one shown below appears.

9. Put the external sequencer in record mode.

10. Press [INC/YES] to transmit the settings.

To cancel the Bulk Dump, press [DEC/NO].

A screen like the one shown below appears.

11. After the transmitting is finished, the display will indicate "COMPLETED."

You are returned to the Edit screen.

12. Stop the external sequencer.

Restoring saved settings to the RD-700

When returning settings saved to an external sequencer back to the RD-700, an Exclusive message is transmitted from the external sequencer, then the data is received by the RD-700.

NOTE

Be aware that when you restore SETUPs data to the RD-700, the data in the RD-700 will be overwritten and lost.

1. Use a MIDI cable to connect the MIDI OUT connector of the external sequencer to the MIDI IN connector of the RD-700.

2. Set the device ID number to the same setting as when you performed the bulk dump.

MEMO

Setting the Device ID Number ➔ **"Setting the Device ID Number (Device ID)"** (p. 71)

3. Make sure that [EDIT] indicator is extinguished.
If the [EDIT] indicator is lit, press [EDIT] to turn the indicator light off and put the RD-700 in normal performance mode.

4. Transmit (play back) the data from the external sequencer.

5. After the transmitting is finished, the display will indicate "COMPLETED."

NOTE

After playback of the Bulk Dump SETUP data, the RD-700 writes the data to the internal memory. Be sure never to turn off the power while this data is being written (while "Now, writing Bulk Dump Data. Keep on POWER!" is showing).

MEMO

For details on transmitting exclusive data, refer to the owner's manual for your sequencer.

NOTE

Play back the external sequencer at the same tempo you used when performing the bulk dump. If you use a faster tempo, the data may not be restored correctly.

NOTE

Data cannot be received if the Device ID of the receiving device differs from the Device ID used when Bulk Dump was carried out.

NOTE

Exclusive messages cannot be received when set to GM Mode (p. 98). Carry out the operation after first exiting GM Mode.

Restoring the settings to the factory condition (Factory Reset)

The settings stored in the RD-700 can be returned to their factory settings.

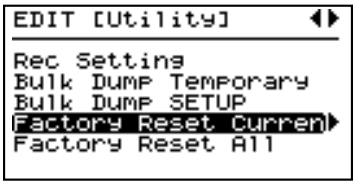
NOTE

Executing "Factory Reset All" results in deletion of the Setups (p. 54). If you want to keep any data you have stored, use the "Bulk Dump SETUP" operation to save the data to an external sequencer (p. 92).

1. Press [EDIT], getting the indicator to light.
The Edit Menu screen appears.

2. Press CURSOR [▼] to select "9.Utility."

3. Press CURSOR [▶] to display the Edit screen.



4. Press CURSOR [▲] or [▼] to select "Factory Reset Current" or "Factory Reset All."

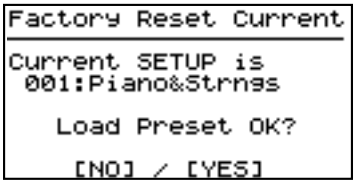
Parameter	Value
Factory Reset Current	The currently selected Setup returned to their factory settings.
Factory Reset All	The settings stored in the RD-700 can be returned to their factory settings.

NOTE

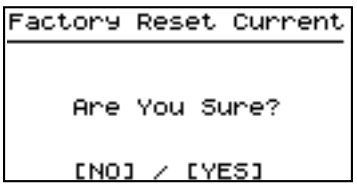
While the Factory Reset is in progress, no sounds are produced even when the keys are pressed. In addition, Rhythms and arpeggios being played are also stopped.

Factory Reset Current

5. Press CURSOR [▶].
A screen like the one shown below appears.



6. Press [INC/YES].
The confirmation message appears.



To cancel the Factory Reset, press [DEC/NO].

7. Press [INC/YES] once again to start the Factory Reset operation.

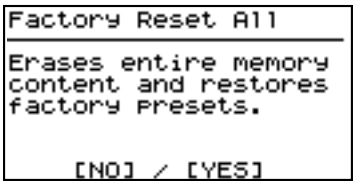
NOTE

Never turn off the power during Factory Reset (while "Now, Executing" appears in the display).

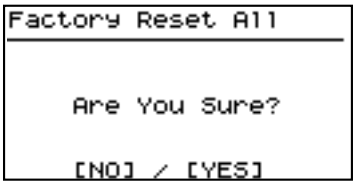
8. After the Factory Reset operation is finished, the display will indicate "COMPLETED."
The Tone screen returns to the display.

Factory Reset All

5 Press CURSOR [▶].
A screen like the one shown below appears.



6. Press [INC/YES].
The confirmation message appears.



To cancel the Factory Reset, press [DEC/NO].

7. Press [INC/YES] once again to start the Factory Reset operation.

NOTE

Never turn off the power during Factory Reset (while "Now, Executing" appears in the display).

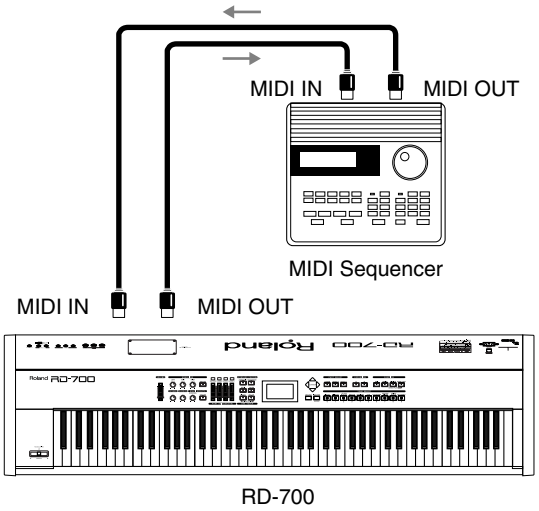
8. After the Factory Reset operation is finished, the display will indicate "COMPLETED."
The Tone screen returns to the display.

Connecting External MIDI Devices

Recording RD-700 Performances to an External MIDI Sequencer

Now, try using an external sequencer to record your music onto multiple tracks, and then play back the recorded performance.

Connecting to an External Sequencer



1. Before starting the connection procedure, make sure that the power to all devices has been turned off.
2. After reading **"Connecting the RD-700 to External Equipment"** (p. 22), connect an audio device/system or headphones.
3. Connect the external MIDI sound device with the MIDI cable as shown in the figure below.
4. As described in **"Turning On the Power"** (p. 24), turn on the power of each device.

Settings for Recording (Rec Setting)

"Rec Mode" is a convenient feature to use when recording to an external sequencer.

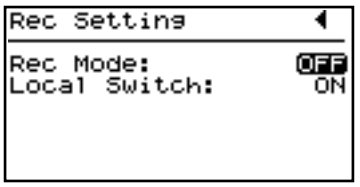
When using the REC Mode function, you can get the most suitable settings for recording the RD-700's data to an external sequencer, without having to make all the Part and channel settings.

1. Press [EDIT], getting the indicator to light.

   The Edit Menu screen appears.

2. Press CURSOR [▼] to select "9.Utility."
3. Press CURSOR [▶] to display the Edit screen.

4. Press CURSOR [▼] to select "Rec Setting."
5. Press CURSOR [▶], and the following screen will appear:



Parameter	Value	Description
Rec Mode	ON, OFF	Ordinarily this will be set to OFF. Setting this to ON enables Rec Mode, switching the RD-700 to the appropriate settings for recording.
Local Switch		This switches the Local Switch on and off. Although normally set to ON, it should be set to OFF when recording. For details, refer to **"About the Local Switch"** (p. 96).

6. Press CURSOR [▲] or [▼] and press [INC/YES] or [DEC/NO] to set the values.
7. When you have finished making the settings, press [EDIT], extinguishing its indicator.

   You are returned to the Tone screen.

   The settings for recording to the external sequencer are now selected.

NOTE

With Rec Mode set to ON, you cannot change the MIDI TX Part settings (p. 60). Pressing [MIDI TX] does not call up the MIDI TX screen when Rec Mode is set to ON.

Recording the Performance

Use the following procedure when recording to an external sequencer.

1. Turn on the external sequencer's Thru function.

   For details, refer to the following section "About Local Switch."

   Refer to your sequencer owner's manual for instructions on how to carry out this procedure.

2. Select the Setup for the performance to be recorded.

   For instructions on selecting the Setup, refer to p. 54.

3. Set the Rec Setting.

   Use the procedure described in the previous section "Settings for Recording" to make the following settings.

   Rec Mode: ON

   Local Switch: OFF

4. Begin recording with the external sequencer.

5. Bulk Dump the Setup.

   Using the Utility Bulk Dump Temporary in Edit mode, transmit the contents of the selected Setup to the external sequencer.

   For instructions on carrying out this operation, refer to **"Transferring the RD-700's Settings to an External MIDI Device (Bulk Dump)"** (p. 92).

6. Perform on the RD-700.

7. When the performance is finished, stop recording with the external sequencer.

   Recording is now complete.

   You can then listen to the recorded performance by playing it back on the external sequencer.

Exiting Rec Mode

When Rec Mode is set to ON, you cannot change the MIDI TX settings. When you have finished recording the performance, use the procedure described in the previous section "Settings for Recording" to set Rec Mode to OFF.

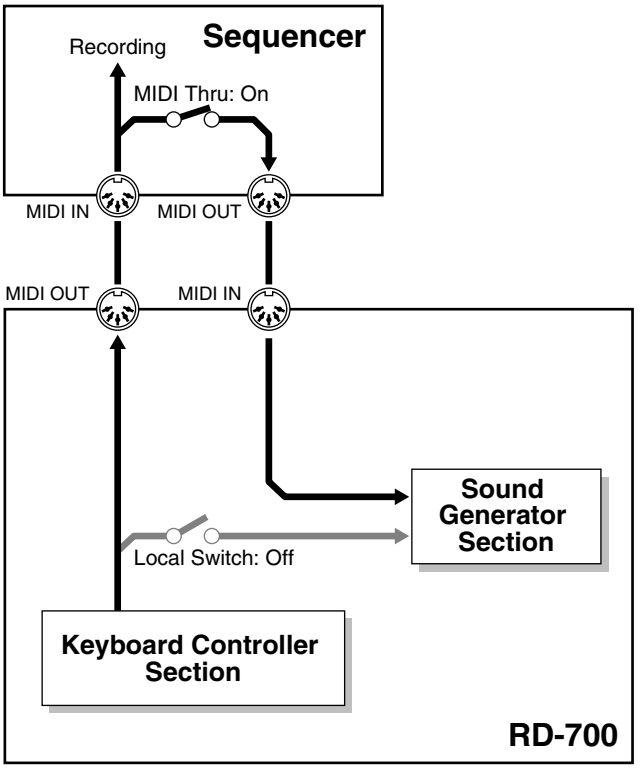
NOTE

The settings made in Rec Setting cannot be saved. Rec Setting automatically switch to "**Rec Mode: OFF, Local Switch: ON**" when the power is turned on.

About the Local Switch

The switch that connects and disconnects the MIDI connection between the keyboard controller section and the sound generator section (p. 31) is called the Local switch. Since essential information describing what is being played on the keyboard won't reach the sound generator if the Local switch is set to OFF, the Local switch should normally be left ON.

However, if while performing you want to send that performance data to an external sequencer as MIDI messages to be recorded, you then perform with the externally connected MIDI sequencer set to MIDI Thru (whereby data received from MIDI IN is then output from the MIDI OUT with no changes made to the data).

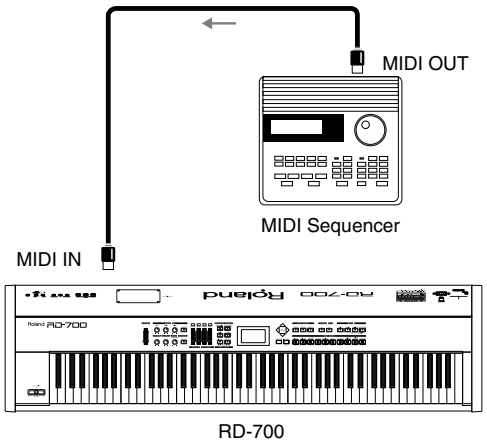


In this case, the data sent over two paths, i.e., the data sent directly from the keyboard controller section and the data sent from the keyboard controller section via the external sequencer, ends up being sent to the sound generator section simultaneously. Thus, for example, even when you play a "C" key only once, the note "C" cannot be sounded correctly, as the sound is played by the sound generator section twice.

Playing the RD-700's Internal Sound Generator from an External MIDI Device

Try Playing the RD-700 from an External MIDI Device.

Making connections



1. Before starting the connection procedure, make sure that the power to all devices has been turned off.
2. After reading **"Connecting the RD-700 to External Equipment"** (p. 22), connect an audio device/system or headphones.
3. Connect the external MIDI device with the MIDI cable as shown in the figure below.
4. As described in **"Turning On the Power"** (p. 24), turn on the power of each device.

Setting the Channels

Set the RD-700's receive channel to match the external MIDI device's transmit channel.

For instructions on setting the RD-700's Receive channel, refer to **"Setting the Receive Channel (Receive Channel)"** (p. 90).

When both channels are matched, playing the external MIDI device produces sounds from the RD-700's sound generator.

MEMO

For instructions on how to set the transmit channel of the external MIDI device, refer to the owner's manual for your external MIDI device.

Selecting RD-700 Sounds from an External MIDI Device

Transmitting Bank Select (Controller Number 0, 32) and Program Change messages from the external MIDI device to the RD-700 allows you to switch Setups and Tones.

Switching Setups

The MIDI messages transmitted by the external MIDI device will be received by the RD-700 to select Setups as shown in the following table.

Number	Bank Select		Program Change Number
	MSB	LSB	
1–100	85	0	1–100

When switching setups, you must match the MIDI channel of the transmitting device with the RD-700's Control channel. (p. 70)

When switching the tones in each part, match the MIDI channel of the transmitting device with the RD-700's Receive channel. However, when the Control channel and the Receive channel are both set to the same channel, the Control channel takes priority, and setups are switched.

Switching Tones

The MIDI messages transmitted by the external MIDI device will be received by the RD-700 to select Tones as shown in the following table.

Group	Number	Bank Select		Program Change Number
		MSB	LSB	
PIANO	001 – 019	087	064	001 – 019
E.PIANO	020 – 039	087	065	001 – 020
CALV/ MALLET	040 – 059	087	066	001 – 020
ORGAN	060 – 089	087	067	001 – 030
STRINGS	090 – 109	087	068	001 – 020
PAD	110 – 129	087	069	001 – 020
GTR/ BASS	130 – 159	087	070	001 – 030
BRASS/ WINDS	160 – 179	087	071	001 – 020
VOICE/ SYNTH	180 – 199	087	072	001 – 020
Rhythm Set	200 – 203	086	064	001 – 004

MEMO

For details on the SRX Series, refer to the owner's manual for the SRX Series Wave Expansion Board.

Using the RD-700 as a GM Sound Module (GM Mode)

The RD-700 features a **GM mode**—a convenient way to play back or create GM score data (music files for GM sound module).

Switching to GM mode not only enables proper playback of GM Scores, but also allows you to mute specific Parts, play the Parts using the RD-700's keyboard, and change the Tones for specific Parts.

Points to Note Regarding GM Mode

- All buttons and knobs other than CURSOR buttons, [INC/YES], [DEC/NO], ONE TOUCH [PIANO], and [SETUP] are disabled in GM mode.
- Be sure to play back from the beginning of the song. When playback of a song is started at any point other than the beginning, the sound generator settings are not reset to the GM and GM2 initial settings values, and the song is not played back correctly.
- When the RD-700 receives a GS Reset message, the RD-700 is enabled for the GS format (a shared set of specifications proposed by Roland for standardization of multi-timbral sound modules). This permits playback of music data bearing the GS logo (GS music data). However, Roland's Sound Canvas Series (including the SC-8850 and SC-8820 models) feature a different sound module format and expanded tone map, so data created exclusively for the Sound Canvas Series may not play back properly on the RD-700.
- You cannot enter GM mode using solely the RD-700 on its own. The RD-700 is switched to GM mode upon reception of a GM System On, GM2 System On, or GS Reset message, which has been supplied to it by being contained within the setup data placed at the beginning of a song that is to be played back.
- You cannot switch to GM mode if the Edit screen's System settings, or the Rx GM System ON, Rx GM2 System ON, or GS Reset settings are set to "OFF." For details, refer to **"Switching Between Reception of GM/GM2 System On and GS Reset"** (p. 70).

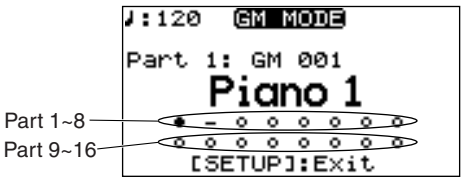
Playing Back GM Scores

1. Connect an external sequencer.

   See p. 97.

2. Play back the GM Score with the external sequencer.

   Playback of the GM Score begins, and the following GM Mode screen is displayed on the RD-700.



   When you play the RD-700's keyboard, you can then perform using the Tone for the currently selected Part.

Changing the tone of a specific part

1. In the GM Mode screen, press the CURSOR buttons to move the cursor to the Part number.
2. Press [DEC/NO] or [INC/YES] to select the Part whose Tone is to be changed.
3. Press CURSOR [▶] to move the cursor to the Tone number.
4. Press [DEC/NO] or [INC/YES] to select the tone.

   The specified Part is played using the selected Tone.

Muting a Specific Part

1. In the GM Mode screen, use the CURSOR buttons to move the cursor to the marker for the Part to be muted.
2. Press [DEC/NO] or [INC/YES] to select whether the mute is turned on or off.

Display	Meaning
❍	MIDI messages are received. The performance is played back according to the MIDI messages.
–	MIDI messages are not received. This Part is muted.

   You can perform on the RD-700's keyboard even when Parts are muted.

Exiting GM Mode

1. In the GM Mode screen, press [PIANO] or [SETUP].

   The RD-700 goes out of GM mode and the Tone screen appears in the display.

   When the above step is carried out while playback of a GM Score is in progress, the RD-700 switches out of GM mode and the Tone screen is displayed while playback of the song continues.

Troubleshooting

If the RD-700 does not function in the way you expect, first check the following points. If this does not resolve the problem, consult your dealer or a nearby Roland Service Station.

* *If certain messages appear in the display during operation, please refer to* ***"Error Messages/Other Messages"*** *(p. 103).*

Problem	Check/Solution
Power Not Coming On	Is the RD-700's AC adapter properly plugged into a power source as well as connected to the RD-700?
No Sound	Is the power for connected amps and speakers turned on? Is the volume turned all the way down?
	Is the VOLUME slider turned all the way down?
	Are all connections properly made? • When using the RD-700 as a stand-alone instrument, be sure to connect with audio cables or use headphones (p. 22).
	Are sounds audible with headphones connected? • If sounds are audible through headphones, it may indicate that there is a short in an audio cable or some sort of amp or mixer problem.Check the cables and equipment once again.
	Is PART SWITCH set to OFF (p. 45, p. 62)?
	Is a Part's volume turned off with the PART LEVEL slider (p. 45, p. 62)?
	If the sound for a pressed key does is not being played, is the Local Switch set to OFF? • In the Utility Rec Setting in Edit mode, set the Local Switch to ON (p. 95).
	Are the effect settings correct? • Check the ON/OFF settings for MULTI EFFECTS [ON/OFF] (p. 53), and MFX/Reverb/Chorus MFX <Other Prm> effect balance and level settings in Edit mode (p. 77, p. 104).

Problem	Check/Solution
No Sound	Are the Wave Expansion Boards correctly installed? • When selecting settings while using the EXPANSION [A] or [B] Tones or Rhythm Sets, confirm that the specified Wave Expansion Boards are properly installed in the specified slots (p. 16).
	Has the volume been lowered by pedal operations or by MIDI messages (volume messages or expression messages) received from an external MIDI device?
No Sound for Specific Part	Is the Part's volume level turned down? • Check the PART LEVEL sliders (p. 45, p. 62) and the Internal Part Prm Volume settings in Edit mode (p. 90).
	Are the Part's MIDI Receive channel and the MIDI Transmit channel for the connected MIDI device matched? • Check the MIDI Receive channel settings with Internal Part Prm Receive Channel in Edit mode (p. 90).
No Sound From the Connected MIDI Device	Is the device enabled to transmit MIDI messages? • Set [MIDI TX] and PART SWITCH to ON (p. 62). MIDI messages cannot be transmitted if PART SWITCH is set to OFF.
	Is the RD-700's keyboard controller section MIDI Transmit channel matched to the connected MIDI device's MIDI Receive channel? • Make the Ch settings in the MIDI TX screen (p. 60).
No Sound in a Specific Range	Has the range in which sounds are to be played (the key range) been set? • Check the settings for the LWR and UPR Parts in the MIDI TX screen (p. 63), as well as the Local Part Param Key Range settings in Edit mode (p. 88).
	With certain Tones, for example Rhythm Sets, bass Tones, Timpani, and other Tones will not sound if a portion of the Tone falls outside the recommended range.

Problem	Check/Solution
Tones Are Altered	Did you call up a Setup? • When a Setup is called up, the current Tone, effect, and other settings are disabled, and the selected Setup goes into effect (p. 54). Resave required settings to a Setup (p. 56).
	Did you press ONE TOUCH [PIANO]? • When ONE TOUCH [PIANO] is pressed, the current Tone, effect, and other settings are disabled, and settings for use in piano performances go into effect (p. 35). Resave required settings to a Setup (p. 56).
	Is the Tone Control function assigned to the [CONTROL] knob? • Check the Control/EQ Control settings in Edit mode (p. 74).
When UPPER Tone is Selected, LOWER Changes to Same Tone	Are the UPPER Part and the LOWER Part set to the same value in the Local Part Param Part Assign settings in Edit mode (p. 89)?
Tone Doesn't Change/Keyboard Not Switching to Split or Layer	Is [MIDI TX] set to ON? • When [MIDI TX] is set to ON, the external sound generator is controlled. To change the RD-700's Tones and make settings in Keyboard mode, set [MIDI TX] to OFF (p. 59).
	Is the PART SELECT button for the Part containing the Tone you want to change set to ON (p. 44)?
	Is [NUM LOCK] on? • Tone categories cannot be selected with the TONE SELECT buttons when [NUM LOCK] is on.
Tone Doesn't Change When a TONE SELECT Button is Pressed	Could you have the Tone Wheel screen appearing in the display? (p. 75) • In the Tone Wheel screen, pressing a TONE SELECT button selects one of the Tone Wheels from 1 through 10.
Rhythm Not Sounding	Set the Part 10 Receive Channel setting in Internal Part Prm in Edit mode to 10 (p. 90).

Problem	Check/Solution
Rhythm Not Sounding	Has the System Clock Source setting in Edit mode been set to MIDI (p. 70)? Do you have an external MIDI device connected? • You cannot set the tempo with the RD-700 when Clock Source is set to MIDI. Accordingly, if no external MIDI device is connected, then no tempo setting is made for the Rhythm, and so the Rhythm does not sound.
	Is the MIDI TX screen (p. 59) active? • Rhythms do not play when the MIDI TX screen appears in the display. Press [MIDI TX] so that the button's indicator light goes off.
	In Edit mode, is the Rhythm Pattern's Pattern setting turned OFF (p. 82)?
Rhythm Intro Not Played/ Rhythm Not Starting From Beginning	Is the MIDI TX Part's PART SWITCH [RHYTHM] turned on? • Are the Local Part's Rhythm and the MIDI TX Part's Rhythms synchronized (p. 51)?
Effects Not Applied/Effects Sound Wrong	Is a Tone Wheel 1–10 Tone selected? Effects are applied differently to the Tone Wheel than they are with other effects. • Effects set in MFX/Reverb/Chorus MFX Source (p. 77) are applied regardless of each Part MFX Switch ON/OFF setting in the Internal Part Prm settings (p. 90), or the MFX setting for each Tone in the Tone Edit (p. 80). • When Tone Wheel is selected for multiple Parts, it is applied to all the Parts, regardless of whether the Rx Bender Switch and Rx Hold-1 Switch in the Internal Part Prm settings are ON or OFF (p. 91).
	Is MULTI EFFECTS [ON/OFF] set to OFF (p. 53)?
	Is the [CONTROL] knob set to MFX Control? • In Edit mode, set the Control setting in MFX/Reverb/Chorus to MFX CONTROL (p. 77).

Problem	Check/Solution
Effects Not Applied/Effects Sound Wrong	In some cases where the delay timing selected in the DELAY settings in MFX/Reverb/Chorus is set to a note value, the delay sound may not be heard. Either adjust the tempo or change the numerical value of the delay timing (p. 79).
	Check the MFX Source and MFX Dest settings for multi-effect that is not sounding in the Lower Part to which it is applied (p. 77). • With certain settings, the Lower Part's MFX settings are disregarded.
No Pitch Bend When Pitch Bend Lever is Moved	Is the Tone Wheel screen appearing in the display? • The pitch bend effect cannot be applied with the pitch bend lever while the Tone Wheel screen is in the display. In this case, the pitch bend lever functions as a slow/fast switch for the Rotary effect (p. 75).
Sounds Come From Left or Right Each Time Key is Pressed (Panned)	In some Tones, the settings are such that sounds randomly play from the left or right side (are panned) each time the keys are pressed. These settings cannot be changed.
Sound is Distorted	Sounds can be distorted due to equalizer, multi-effect, and Part volume settings. Adjust the following settings. • PART LEVEL sliders (p. 45). • Edit mode MFX/Reverb/Chorus MFX <Other Prm> effect levels (p. 77). • System Master Volume settings (p. 70).
	Is a distortion-type effect being applied to the sound (p. 77, p. 80)?
Cannot Select the Draw Bar Screen (Tone Wheel Screen)	The screen is displayed by selecting a Organ Tone (Tone Wheel 1~10) for any of the UPPER1, UPPER2, or LOWER Parts in the Tone screen, and then pressing CURSOR [◀] (p. 75).
Key Range Settings Not Effective	Is [SPLIT] set to OFF? • Key Range goes into effect when [SPLIT] set to ON (p. 63, p. 88).

Problem	Check/Solution
Tempo Doesn't Change	Is the System Clock Source setting in Edit mode set to MIDI? • When you want to perform using the RD-700's tempo, set this to "INT" (p. 70).
Pitch is Odd	Depending on the Tone selected, pitches played in certain registers will be changed and played at other pitches.
	Is Coarse Tune, Fine Tune, or Stretch Tune set for any specific Part? • Check the Tone Edit Course Tune, Fine Tune and Stretch Tune settings in Edit mode (p. 80, p. 81), or C.T and F.T setting in MIDI TX screen.(p. 65).
	Has the RD-700 gone out of tune? Check the System Master Tune settings in Edit mode (p. 29).
	Has the pitch been changed by pedal operations or by Pitch Bend messages received from an external MIDI device?
Sound is Cut Off	When you try playing more than the maximum 128 voices simultaneously, sounds currently being played may be cut out. • Increase the Voice Reserve settings for the Parts you do not want to have cut off (p. 90).
Sound Keeps Playing When Key is Pressed	Is the hold pedal polarity reversed? • Check the System Pedal Polarity settings in Edit mode (p. 71).
Exclusive Messages Cannot Be Received	Is the Device ID number of the transmitting device matched to the RD-700's Device ID number? • Check the System Device ID settings in Edit mode (p. 71).
	Is the RD-700 set to GM mode? • Press ONE TOUCH [PIANO] or [SETUP] to exit GM mode (p. 98).
Setup Name Not Correctly Indicated	When a Setup name is registered (p. 56), names with eight or more of the letters M, N, or W are not displayed correctly. Try reducing the number of these letters.

Problem	Check/Solution
Song Data Not Played Back Correctly Song Data Not Played Back Correctly	Is the Receive GM/GM2 System On Switch set to ON? • Set the System Rx GM System On or System Rx GM2 System On to ON in Edit mode (p. 70).
	Does playback of the song start from some point other than the beginning of the song? • Add a GM/GM2 System On message at the beginning of GM Score songs. In some cases, a GM Score cannot be played back correctly unless this message is received.
	Are you playing back GS Format song data? • Once the RD-700 receives a GS Reset message, it then is enabled for GS Format. This permits playback of music files bearing the GS logo (GS music files). However, data created exclusively for the Sound Canvas Series may not play back properly on the RD-700.

Error Messages/Other Messages

Error messages

Indication: **MIDI Buffer Full**

Situation: Due to an inordinate volume of MIDI messages received, the RD-700 has failed to process them properly.

Action: Reduce the amount of MIDI messages to be transmitted.

Indication: **MIDI Communication Error**

Situation: A problem has occurred with the MIDI cable connections.

Action: Check that MIDI cables are not broken or pulled out.

Indication: **BULK DUMP: Receive Data Error**

Situation: A MIDI message was received incorrectly.

Action: If the same error message is displayed repeatedly, there is a problem with the MIDI messages that are being transmitted to the RD-700.

Indication: **BULK DUMP: Check Sum Error**

Situation: There is a problem with the System Exclusive message's Check Sum.

Action: Check the value of the Check Sum.

Other Messages

Indication: **Now, Transmitting System Exclusive.**

Situation: Indicated when a Data Request message (RQ1) is received.

Action: The RD-700 outputs the requested data while this message continues to be displayed.

Indication: **Now, writing Bulk Dump Data. Keep on POWER!!**

Situation: Indicated when Bulk Dump data is being received.

Action: Once received, the data is written to the RD-700's internal memory; be absolutely sure not to turn off the power until "COMPLETED" appears in the display.

Indication: **Unavailable while in Rec Mode**

Situation: This is displayed when the [MIDI TX] button is pressed with Rec Mode "ON."

Action: When Rec Mode is "ON," you cannot change the MIDI TX settings. To make changes to the MIDI TX settings, set Rec Mode to "OFF" (p. 97).

Effect/Parameter List

* Parameters with the "#" showing can be assigned to the MULTI-EFFECTS [CONTROL] knob. Set "MFX CONTROL" following the instructions in **"How to Make Settings"** (p. 76).

01: STEREO EQ (Stereo Equalizer)

This is a four-band stereo equalizer (low, mid x 2, high).

Low Freq (Low Frequency)
Select the frequency of the low range (200 Hz/400 Hz).

Low Gain
Adjust the gain of the low frequency.
Positive (+) settings will emphasize (boost) the low frequency range.

High Freq (High Frequency)
Select the frequency of the high range (2000 Hz/4000 Hz/8000 Hz).

High Gain
Adjust the gain of the high frequency.
Positive (+) settings will emphasize (boost) the high frequency range.

Mid1 Freq (Middle 1 Frequency)
Adjust the frequency of Middle 1 (mid range).

Mid1 Q (Middle 1 Q)
This parameter adjusts the width of the area around the Middle 1 Frequency that will be affected by the Gain setting. Higher values of Middle 1 Q will result in a narrower area being affected.

Mid1 Gain (Middle1 Gain)
Adjust the gain for the area specified by the Middle 1 Frequency and Q settings.
Positive (+) settings will emphasize (boost) the Middle 1 range.

Mid2 Freq (Middle 2 Frequency)
Adjust the frequency of Middle 2 (mid range).

Mid2 Q (Middle 2 Q)
This parameter adjusts the width of the area around the Middle 2 Frequency that will be affected by the Gain setting. Higher values of Middle 2 Q will result in a narrower area being affected.

Mid2 Gain (Middle 2 Gain)
Adjust the gain for the area specified by the Middle 2 Frequency and Q settings.
Positive (+) settings will emphasize (boost) the Middle 2 range.

Level (Output Level) #
Adjust the output level.

02: OVERDRIVE

This effect creates a soft distortion similar to that produced by vacuum tube amplifiers.

Drive #
Adjust the degree of distortion. The volume will change together with the degree of distortion.

Level (Output Level)
Adjust the output level.
It's a good idea to use the Output Level to adjust the difference in volume between when Overdrive is applied and when it is not applied.

Low Gain
Adjust the gain of the low frequency range.
Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the gain of the high frequency range.
Positive (+) settings will emphasize (boost) the high frequency range.

Amp Type (Amp Simulator Type)
Select the type of guitar amp.
SMALL: small amp
BUILT-IN: single-unit type amp
2-STACK: large double stack amp
3-STACK: large triple stack amp

Pan (Output Pan) #
Adjust the stereo location of the output sound. L64 is far left, 0 is center, and 63R is far right.

03: DISTORTION

This effect produces a more intense distortion than Overdrive.

Drive #
Adjust the degree of distortion. The volume will change together with the degree of distortion.

Level (Output Level)
Adjust the output level.
It's a good idea to use the Output Level to adjust the difference in volume between when Distortion is applied and when it is not applied.

Low Gain
Adjust the gain of the low frequency range.
Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the gain of the high frequency range.
Positive (+) settings will emphasize (boost) the high frequency range.

Amp Type (Amp Simulator Type)
Select the type of guitar amp.
SMALL: small amp
BUILT-IN: single-unit type amp
2-STACK: large double stack amp
3-STACK: large triple stack amp

Pan (Output Pan) #
Adjust the stereo location of the output sound. L64 is far left, 0 is center, and 63R is far right.

04: PHASER

A phaser adds a phase-shifted sound to the direct sound, producing a twisting modulation that creates spaciousness and depth.

Manual #
Adjust the basic frequency from which the sound will be modulated.

Rate #
Adjust the frequency (period) of modulation.

Depth
Adjust the depth of modulation.

Resonance
Adjust the amount of feedback for the phaser.
The effect becomes more prominent as the value is increased.

Mix (Mix Level)
Adjust the ratio with which the phase-shifted sound is combined with the direct sound.

Pan (Output Pan)
Adjust the stereo location of the output sound. L64 is far left, 0 is center, and 63R is far right.

Level (Output Level)
Adjust the output level.

05: SPECTRUM

Spectrum is a type of filter which modifies the timbre by boosting or cutting the level at specific frequencies. It is similar to an equalizer, but has 8 frequency points fixed at locations most suitable for adding character to the sound.

Band 1 (Band 1 Gain)
Adjust the 250 Hz gain.

Band 2 (Band 2 Gain)
Adjust the 500 Hz gain.

Band 3 (Band 3 Gain)
Adjust the 1000 Hz gain.

Band 4 (Band 4 Gain)
Adjust the 1250 Hz gain.

Band 5 (Band 5 Gain)
Adjust the 2000 Hz gain.

Band 6 (Band 6 Gain)
Adjust the 3150 Hz gain.

Band 7 (Band 7 Gain)
Adjust the 4000 Hz gain.

Band 8 (Band 8 Gain)
Adjust the 8000 Hz gain.

Q
Simultaneously adjust the width of the adjusted areas for all the frequency bands.

Pan (Output Pan) #
Adjust the stereo location of the output sound. L64 is far left, 0 is center, and 63R is far right.

Level (Output Level) #
Adjust the output level.

06: ENHANCER

The Enhancer controls the overtone structure of the high frequencies, adding sparkle and tightness to the sound.

Sens (Sensitivity) #
Adjust the sensitivity of the enhancer.

Mix (Mix Level) #
Adjust the ratio with which the overtones generated by the enhancer are combined with the direct sound.

Low Gain
Adjust the gain of the low frequency range.
Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the gain of the high frequency range.
Positive (+) settings will emphasize (boost) the high frequency range.

Level (Output Level)
Adjust the output level.

07: AUTO WAH

The Auto Wah cyclically controls a filter to create cyclic change in timbre.

Filter (Filter Type)
Select the type of filter.
LPF: The wah effect will be applied over a wide frequency range.
BPF: The wah effect will be applied over a narrow frequency range.

Sens (Sensitivity)
Adjust the sensitivity with which the filter is controlled.

Manual #
Adjust the frequency from which the effect is applied.

Peak
Adjust the amount of the wah effect that will occur in the area of the frequency. Lower settings will cause the effect to be applied in a broad area around the frequency. Higher settings will cause the effect to be applied in a more narrow range.

Rate #
Adjust the frequency of the modulation.

Depth
Adjust the depth of the modulation.

Level (Output Level)
Adjust the output level.

08: ROTARY

The Rotary effect simulates the sound of the rotary speakers often used with the electric organs of the past. Since the movement of the high range and low range rotors can be set independently, the unique type of modulation characteristic of these speakers can be simulated quite closely. This effect is most suitable for electric organ Patches.

Low Slow (Low Frequency Slow Rate)
Adjust the slow speed (SLOW) of the low frequency rotor.

Low Fast (Low Frequency Fast Rate)
Adjust the fast speed (FAST) of the low frequency rotor.

Low Accel (Low Frequency Acceleration)
Adjust the time it takes the low frequency rotor to reach the newly selected speed when switching from fast to slow (or slow to fast) speed. Lower values will require longer times.

Low Level (Low Frequency Level)
Adjust the volume of the low frequency rotor.

Hi Slow (High Frequency Slow Rate)
Adjust the slow speed (SLOW) of the high frequency rotor.

Hi Fast (High Frequency Fast Rate)
Adjust the fast speed (FAST) of the high frequency rotor.

Hi Accel (High Frequency Acceleration)
Adjust the time it takes the high frequency rotor to reach the newly selected speed when switching from fast to slow (or slow to fast) speed. Lower values will require longer times.

Hi Level (High Frequency Level)
Adjust the volume of the high frequency rotor.

Separate
Adjust the spatial dispersion of the sound.

Speed #
Simultaneously switch the rotational speed of the low frequency rotor and high frequency rotor.
SLOW: Slow down the rotation to the specified speed (the Low Slow/Hi Slow values).
FAST: Speed up the rotation to the specified speed (the Low Fast/Hi Fast values).

Level (Output Level) #
Adjust the output level.

09: COMPRESSOR

The Compressor flattens out high levels and boosts low levels, smoothing out unevenness in volume.

Attack
Adjust the attack time of an input sound.

Sustain
Adjust the time over which low level sounds are boosted until they reach the specified volume.

Post Gain
Adjust the output gain.

Low Gain
Adjust the low frequency gain.
Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the high frequency gain.
Positive (+) settings will emphasize (boost) the high frequency range.

Pan (Output Pan) #
Adjust the stereo location of the output sound. L64 is far left, 0 is center, and 63R is far right.

Level (Output Level) #
Adjust the output level.

10: LIMITER

The Limiter compresses signals that exceed a specified volume level, preventing distortion from occurring.

Threshold (Threshold Level)
Adjust the volume at which compression will begin.

Ratio (Compression Ratio)
Adjust the compression ratio.

Release (Release Time)
Adjust the time from when the volume falls below the Threshold Level until compression is no longer applied.

Post Gain
Adjust the output gain.

Low Gain
Adjust the low frequency gain.
Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the high frequency gain.
Positive (+) settings will emphasize (boost) the high frequency range.

Pan (Output Pan) #
Adjust the stereo location of the output sound. L64 is far left, 0 is center, and 63R is far right.

Level (Output Level) #
Adjust the output level.

11: HEXA-CHORUS

Hexa-chorus uses a six-phase chorus (six layers of chorused sound) to give richness and spatial spread to the sound.

Pre Delay (Pre Delay Time)
Adjust the time delay from when the direct sound begins until the chorus sound is heard.

Rate #
Adjust the rate of modulation.

Depth
Adjust the depth of modulation.

Delay Dev (Pre Delay Deviation)

Pre Delay determines the time from when the direct sound begins until the processed sound is heard. Pre Delay Deviation adjusts the differences in Pre Delay between each chorus sound.

Depth Dev (Depth Deviation)

Adjust the difference in modulation depth between each chorus sound. The shift between the start of each of the chorus sounds increases as the value is increased.

Pan Dev (Pan Deviation)

Adjust the difference in stereo location between each chorus sound. With a setting of 0, all chorus sounds will be in the center. With a setting of 20, each chorus sound will be spaced at 60 degree intervals relative to the center.

Balance (Effect Balance) #

Adjust the volume balance between the direct sound and the chorus sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the chorus sound will be output.

Level (Output Level)

Adjust the output level.

12: TREMOLO CHO (Tremolo Chorus)

Tremolo Chorus is a chorus effect with added Tremolo (cyclic modulation of volume).

Pre Delay (Pre Delay Time)

Adjust the time delay from when the direct sound begins until the chorus sound is heard.

Cho Rate (Chorus Rate)

Adjust the modulation speed of the chorus effect.

Cho Depth (Chorus Depth)

Adjust the modulation depth of the chorus effect.

Phase (Tremolo Phase)

Adjust the spread of the tremolo effect.

Trem Rate (Tremolo Rate) #

Adjust the modulation speed of the tremolo effect.

Trem Sep (Tremolo Separation)

Adjust the spread of the tremolo effect.

Balance (Effect Balance) #

Adjust the volume balance between the direct sound and the tremolo chorus sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the tremolo chorus sound will be output.

Level (Output Level)

Adjust the output level.

13: SPACE-D

Space-D is a multiple chorus that applies two-phase modulation in stereo. It gives no impression of modulation, but produces a transparent chorus effect.

Pre Delay (Pre Delay Time)

Adjust the time delay from when the direct sound begins until the processed sound is heard.

Rate #

Adjust the rate of modulation.

Depth

Adjust the depth of modulation.

Phase

Adjust the spatial spread of the sound.

Low Gain

Adjust the gain of the low frequency range.
Positive (+) settings will emphasize (boost) the low frequency range.

High Gain

Adjust the gain of the high frequency range.
Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance) #

Adjust the volume balance between the direct sound and the chorus sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the chorus sound will be output.

Level (Output Level)

Adjust the output level.

14: STEREO CHORUS

This is a stereo chorus. A filter is provided so that you can adjust the timbre of the chorus sound.

Pre Delay (Pre Delay Time)

Adjust the time delay from when the direct sound begins until the processed sound is heard.

Rate #

Adjust the rate of modulation.

Depth

Adjust the depth of modulation.

Phase

Adjust the spatial spread of the sound.

Filter (Filter Type)

Select the type of filter.
OFF: a filter will not be used
LPF: cut the frequency range above the cutoff frequency
HPF: cut the frequency range below the cutoff frequency

Cutoff (Cutoff Frequency)

Adjust the basic frequency of the filter.

Low Gain

Adjust the gain of the low frequency range.
Positive (+) settings will emphasize (boost) the low frequency range.

High Gain

Adjust the gain of the high frequency range.
Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance) #

Adjust the volume balance between the direct sound and the chorus sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the chorus sound will be output.

Level (Output Level)

Adjust the output level.

15: ST.FLANGER (Stereo Flanger)

This is a stereo flanger. (The LFO has the same phase for left and right.) It produces a metallic resonance that rises and falls like a jet airplane taking off or landing. A filter is provided so that you can adjust the timbre of the flanged sound.

Pre Delay (Pre Delay Time)

Adjust the time delay from when the direct sound begins until the flanger sound is heard.

Rate #

Adjust the rate of modulation.

Depth

Adjust the depth of modulation.

Feedback (Feedback Level) #

Adjust the proportion (%) of the processed sound that is returned (fed back) into the input. Positive (+) settings will return the sound in phase, and negative (-) settings will return the sound in reverse phase.

The effect becomes more prominent as the value is increased.

Phase

Adjust the spatial spread of the sound.

Filter (Filter Type)

Select the type of filter.

OFF: a filter will not be used

LPF: cut the frequency range above the cutoff frequency

HPF: cut the frequency range below the cutoff frequency

Cutoff (Cutoff Frequency)

Adjust the basic frequency of the filter.

Low Gain

Adjust the gain of the low frequency range.

Positive (+) settings will emphasize (boost) the low frequency range.

High Gain

Adjust the gain of the high frequency range.

Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance)

Adjust the volume balance between the direct sound and the flanger sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the flanger sound will be output.

Level (Output Level)

Adjust the output level.

16: STEP FLANGER

The Step Flanger effect is a flanger in which the flanger pitch changes in steps.

Pre Delay (Pre Delay Time)

Adjust the time delay from when the direct sound begins until the flanger sound is heard.

Rate

Adjust the rate of modulation.

Depth

Adjust the depth of modulation.

Feedback (Feedback Level) #

Adjust the proportion (%) of the flanger sound that is returned (fed back) into the input. Negative (-) settings will invert the phase.

The effect becomes more prominent as the value is increased.

Phase

Adjust the spatial spread of the sound.

Step Rate #

Adjust the rate (period) of pitch change.

➔ Step Rate parameter can be set as a note-value of a tempo. In this case, specify the value of the desired note.

Low Gain

Adjust the gain of the low frequency range.

Positive (+) settings will emphasize (boost) the low frequency range.

High Gain

Adjust the gain of the high frequency range.

Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance)

Adjust the volume balance between the direct sound and the flanger sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the chorus sound will be output.

Level (Output Level)

Adjust the output level.

17: STEREO DELAY

Delay L (Delay Time Left)

Adjust the time from the direct sound until when the left delay sound is heard.

Delay R (Delay Time Right)

Adjust the time from the direct sound until when the right delay sound is heard.

Feedback (Feedback Level) #

Adjust the proportion (%) of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.

Mode (Feedback Mode)
Select the way in which delay sound is fed back into the effect.
NORMAL: The left delay sound will be fed back into the left delay, and the right delay sound into the right delay.
CROSS: The left delay sound will be fed back into the right delay, and the right delay sound into the left delay.

Phase L (Feedback Phase Left)
Select the phase of the left delay sound.
NORMAL: Phase is not changed.
INVERT: Phase is inverted.

Phase R (Feedback Phase Right)
Select the phase of the right delay sound.
NORMAL: Phase is not changed.
INVERT: Phase is inverted.

HF Damp
Adjust the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.

Low Gain
Adjust the gain of the low frequency range.
Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the gain of the high frequency range.
Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance) #
Adjust the volume balance between the direct sound and the delay sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the delay sound will be output.

Level (Output Level)
Adjust the output level.

18: MOD DELAY (Modulation Delay)

This effect adds modulation to the delayed sound, producing an effect similar to a flanger.

Delay L (Delay Time Left)
Adjust the time from the direct sound until when the left delay sound is heard.

Delay R (Delay Time Right)
Adjust the time from the direct sound until when the right delay sound is heard.

Feedback (Feedback Level)
Adjust the proportion (%) of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.

Mode (Feedback Mode)
Select the way in which delay sound is fed back into the effect.
NORMAL: The left delay sound will be fed back into the left delay, and the right delay sound into the right delay.
CROSS: The left delay sound will be fed back into the right delay, and the right delay sound into the left delay.

Rate #
Adjust the speed of the modulation.

Depth
Adjust the depth of the modulation.

Phase
Adjust the spatial spread of the sound.

HF Damp
Adjust the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.

Low Gain
Adjust the gain of the low frequency range.
Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the gain of the high frequency range.
Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance) #
Adjust the volume balance between the direct sound and the modulation delay sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the modulation delay sound will be output.

Level (Output Level)
Adjust the output level.

19: TRI TAP DLY (Triple Tap Delay)

The Triple Tap Delay produces three delay sounds; center, left and right.

Delay C (Delay Time Center)
Adjust the time delay from the direct sound until when the center delay sound is heard.

Delay L (Delay Time Left)
Adjust the time delay from the direct sound until when the left delay sound is heard.

Delay R (Delay Time Right)
Adjust the time delay from the direct sound until when the right delay sound is heard.

→ Delay C, Delay L and Delay R parameters can be set as a note-value of a tempo. In this case, specify the value of the desired note.

Feedback (Feedback Level) #
Adjust the proportion (%) of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.

Level C (Center Level)
Adjust the volume of the center delay sound.

Level L (Left Level)
Adjust the volume of the left delay sound.

Level R (Right Level)
Adjust the volume of the right delay sound.

HF Damp

Adjust the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.

Low Gain

Adjust the gain of the low frequency range.
Positive (+) settings will emphasize (boost) the low frequency range.

High Gain

Adjust the gain of the high frequency range.
Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance) #

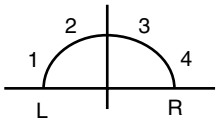
Adjust the volume balance between the direct sound and the delay sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the delay sound will be output.

Level (Output Level)

Adjust the output level.

20: QUAD TAP DLY (Quadruple Tap Delay)

The Quadruple Tap Delay has four delays.
The stereo location of each delay sound is as follows.



Delay 1 (Delay Time 1)

Adjust the time delay from the direct sound until when delay 1 sound is heard.

Delay 2 (Delay Time 2)

Adjust the time delay from the direct sound until when delay 2 sound is heard.

Delay 3 (Delay Time 3)

Adjust the time delay from the direct sound until when delay 3 sound is heard.

Delay 4 (Delay Time 4)

Adjust the time delay from the direct sound until when delay 4 sound is heard.

➔ Delay 1–4 parameters can be set as a note-value of a tempo. In this case, specify the value of the desired note.

Level 1

Adjust the volume of delay 1 sound.

Level 2

Adjust the volume of delay 2 sound.

Level 3

Adjust the volume of delay 3 sound.

Level 4

Adjust the volume of delay 4 sound.

Feedback (Feedback Level) #

Adjust the proportion (%) of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.

HF Damp

Adjust the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.

Balance (Effect Balance) #

Adjust the volume balance between the direct sound and the delay sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the delay sound will be output.

Level (Output Level)

Adjust the output level.

21: TIME CTRL DLY (Time Control Delay)

You can use MIDI messages assigned to the Control knob to make changes in the delay time and pitch in real time.
Lengthening the delay will lower the pitch, and shortening it will raise the pitch.

Delay (Delay time) #

Adjust the time delay from the direct sound until when each delay sound is heard.

Accel (Acceleration)

This parameter adjusts the time over which the Delay Time will change from the current setting to a newly specified setting. The rate of change for the Delay Time directly affects the rate of pitch change.

Feedback (Feedback Level) #

Adjust the proportion (%) of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.

HF Damp

Adjust the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.

Pan (Output Pan)

Adjust the stereo location of the delay sound. L64 is far left, 0 is center, and 63R is far right.

Low Gain

Adjust the gain of the low frequency range.
Positive (+) settings will emphasize (boost) the low frequency range.

High Gain

Adjust the gain of the high frequency range.
Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance)

Adjust the volume balance between the direct sound and the delay sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the delay sound will be output.

Level (Output Level)
Adjust the output level.

22: 2V PCH SHIFT (2 Voice Pitch Shifter)

A Pitch Shifter shifts the pitch of the direct sound. This 2-voice pitch shifter has two pitch shifters, and can add two pitch shifted sounds to the direct sound.

Coarse A (Coarse Pitch A) #1
Adjust the pitch of Pitch Shift A in semitone steps (-2–+1 octaves).

Fine A (Fine Pitch A) #1
Make fine adjustments to the pitch of Pitch Shift A in 2-cent steps (-100–+100 cents).
One cent is 1/100th of a semitone.

Pan A (Output Pan A)
Adjust the stereo location of the Pitch Shift A sound. L64 is far left, 0 is center, and 63R is far right.

PreDelayA (Pre Delay Time A)
Adjust the time delay from when the direct sound begins until the Pitch Shift A sound is heard.

Coarse B (Coarse Pitch B) #2
Adjust the pitch of Pitch Shift B in semitone steps (-2–+1 octaves).

Fine B (Fine Pitch B) #2
Make fine adjustments to the pitch of Pitch Shift B in 2-cent steps (-100–+100 cents).
One cent is 1/100th of a semitone.

Pan B (Output Pan B)
Adjust the stereo location of the Pitch Shift B sound. L64 is far left, 0 is center, and 63R is far right.

PreDelayB (Pre Delay Time B)
Adjust the time delay from when the direct sound begins until the Pitch Shift A sound is heard.

Mode (Pitch Shifter Mode)
Higher settings of this parameter will result in slower response, but steadier pitch.

Level Bal (Level Balance)
Adjust the volume balance between the Pitch Shift A and Pitch Shift B sounds.
When set to A100:0B, only the sound of Pitch Shift A is output; when set to A0:100B, only the sound of Pitch Shift B is output.

Balance (Effect Balance)
Adjust the volume balance between the direct sound and the pitch shift sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the pitch shift sound will be output.

Level (Output Level)
Adjust the output level.

23: FBK PCH SHIFT (Feedback Pitch Shifter)

This pitch shifter allows the pitch shifted sound to be fed back into the effect.

Coarse (Coarse Pitch) #1
Adjust the pitch of the pitch shifted sound in semitone steps (-2–+1 octaves).

Fine (Fine Pitch) #1
Make fine adjustments to the pitch of the pitch shifted sound in 2-cent steps (one cent is 1/100th of a semi tone).

Feedback (Feedback Level) #
Adjust the proportion (%) of the processed sound that is fed back into the effect. Negative (-) settings will invert the phase.

Pre Delay (Pre Delay Time)
Adjust the time delay from when the direct sound begins until the pitch shifted sound is heard.

Mode (Pitch Shifter Mode)
Higher settings of this parameter will result in slower response, but steadier pitch.

Pan (Output Pan)
Adjust the stereo location of the pitch shifted sound. L64 is far left, 0 is center, and 63R is far right.

Low Gain
Adjust the gain of the low frequency range.
Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the gain of the high frequency range.
Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance)
Adjust the volume balance between the direct sound and the pitch shift sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the pitch shift sound will be output.

Level (Output Level)
Adjust the output level.

24: REVERB

The Reverb effect adds reverberation to the sound, simulating an acoustic space.

Type (Reverb Type)
Select the type of Reverb effect.
ROOM1: dense reverb with short decay
ROOM2: sparse reverb with short decay
STAGE1: reverb with greater late reverberation
STAGE2: reverb with strong early reflections
HALL1: reverb with clear reverberance
HALL2: reverb with rich reverberance

Pre Delay (Pre Delay Time)
Adjust the time delay from when the direct sound begins until the reverb sound is heard.

Time (Reverb Time) #
Adjust the time length of reverberation.

HF Damp
Adjust the frequency above which the reverberant sound will be cut. As the frequency is set lower, more of the high frequencies will be cut, resulting in a softer and more muted reverberance. If you do not want the high frequencies to be cut, set this parameter to BYPASS.

Low Gain
Adjust the gain of the low frequency range.
Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the gain of the high frequency range.
Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance) #
Adjust the volume balance between the direct sound and the reverb sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the reverb sound will be output.

Level (Output Level)
Adjust the output level.

25: GATED REVERB

Gate Reverb is a special type of reverb in which the reverberant sound is cut off before its natural length.

Type (Gated Reverb Type)
Select the type of reverb.
NORMAL: conventional gate reverb
REVERSE: backwards reverb
SWEEP1: the reverberant sound moves from right to left
SWEEP2: the reverberant sound moves from left to right

Pre Delay (Pre Delay Time)
Adjust the time delay from when the direct sound begins until the reverb sound is heard.

Gate Time
Adjust the time from when the reverb is heard until when it disappears.

Low Gain
Adjust the gain of the low frequency range.
Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the gain of the high frequency range.
Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance) #
Adjust the volume balance between the direct sound and the reverb sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the reverb sound will be output.

Level (Output Level) #
Adjust the output level.

26: OD→CHORUS (Overdrive→Chorus)

This effect connects an overdrive and a chorus in series.

OD Drive
Adjust the degree of overdrive distortion. The volume will change together with the degree of distortion.

OD Pan (Overdrive Pan) #
Adjust the stereo location of the overdrive sound. L64 is far left, 0 is center, and 63R is far right.

Cho Delay (Chorus Pre Delay Time)
Adjust the time delay from when the direct sound begins until the chorus sound is heard.

Cho Rate (Chorus Rate)
Adjust the modulation speed of the chorus effect.

Cho Depth (Chorus Depth)
Adjust the modulation depth of the chorus effect.

Cho Bal (Chorus Balance) #
Adjust the volume balance between the overdrive sound that is sent through the chorus and the overdrive sound that is not sent through the chorus. With a setting of "D100:0W," only the overdrive sound will be output. With a setting of "D0:100W," only the overdrive sound that is sent through the chorus will be output.

Level (Output Level)
Adjust the output level.

27: OD→FLANGER (Overdrive→Flanger)

This effect connects an overdrive and a flanger in series.

OD Drive
Adjust the degree of overdrive distortion. The volume will change together with the degree of distortion.

OD Pan (Overdrive Pan) #
Adjust the stereo location of the overdrive sound. L64 is far left, 0 is center, and 63R is far right.

Flg Delay (Flanger Pre Delay Time)
Adjust the time delay from when the direct sound begins until the flanger sound is heard.

Flg Rate (Flanger Rate)
Adjust the modulation speed of the flanger effect.

Flg Depth (Flanger Depth)
Adjust the modulation depth of the flanger effect.

Flg Fbk (Flanger Feedback Level)
Adjust the proportion (%) of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.

Flg Bal (Flanger Balance) #

Adjust the volume balance between the overdrive sound that is sent through the flanger and the overdrive sound that is not sent through the flanger. With a setting of "D100:0W," only the overdrive sound will be output. With a setting of "D0:100W," only the overdrive sound that is sent through the flanger will be output.

Level (Output Level)

Adjust the output level.

28: OD→DELAY (Overdrive→Delay)

This effect connects an overdrive and a delay in series.

OD Drive

Adjust the degree of overdrive distortion. The volume will change together with the degree of distortion.

OD Pan (Overdrive Pan) #

Adjust the stereo location of the overdrive sound. L64 is far left, 0 is center, and 63R is far right.

Dly Time (Delay Time)

Adjust the time delay from when the direct sound begins until the delay sound is heard.

Delay Fbk (Delay Feedback Level)

Adjust the proportion (%) of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.

Dly HFDmp

Adjust the frequency above which delayed sound fed back to the effect will be cut. If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.

Delay Bal (Delay Balance) #

Adjust the volume balance between the overdrive sound that is sent through the delay and the overdrive sound that is not sent through the delay. With a setting of "D100:0W," only the overdrive sound will be output. With a setting of "D0:100W," only the overdrive sound that is sent through the delay will be output.

Level (Output Level)

Adjust the output level.

29: DIST→CHORUS (Distortion→Chorus)

This effect connects distortion and chorus in series. The parameters are essentially the same as "26: OD→CHORUS," with the exception of the following two.

OD Drive →Dst Drive (Specify the amount of distortion.)
OD Pan →Dist Pan (Specify the stereo location of the distortion sound.)

30: DIST→FLANGER (Distortion→Flanger)

This effect connects distortion and flanger in series. The parameters are essentially the same as in "27: OD→FLANGER," with the exception of the following two.

OD Drive →Dst Drive (Specify the amount of distortion.)
OD Pan →Dist Pan (Specify the stereo location of the distortion sound.)

31: DIST→DELAY (Distortion→Delay)

This effect connects distortion and delay in series. The parameters are essentially the same as in "28: OD→DELAY," with the exception of the following two.

OD Drive →Dst Drive (Specify the amount of distortion.)
OD Pan →Dist Pan (Specify the stereo location of the distortion sound.)

32: ENHAN→CHORUS (Enhancer→Chorus)

This effect connects an enhancer and a chorus in series.

Enh Sens (Enhancer Sensitivity) #

Adjust the sensitivity of the enhancer.

Enh Mix (Enhancer Mix Level)

Adjust the ratio with which the overtones generated by the enhancer are combined with the direct sound.

Cho Delay (Chorus Pre Delay Time)

Adjust the time delay from when the direct sound begins until the chorus sound is heard.

Cho Rate (Chorus Rate)

Adjust the modulation speed of the chorus effect.

Cho Depth (Chorus Depth)

Adjust the modulation depth of the chorus effect.

Cho Bal (Chorus Balance) #

Adjust the volume balance between the enhancer sound that is sent through the chorus and the enhancer sound that is not sent through the chorus. With a setting of "D100:0W," only the enhancer sound will be output. With a setting of "D0:100W," only the enhancer sound that is sent through the chorus will be output.

Level (Output Level)

Adjust the output level.

33: ENHAN→FLANGER (Enhancer→Chorus)

This effect connects an enhancer and a flanger in series.

Enh Sens (Enhancer Sensitivity) #

Adjust the sensitivity of the enhancer.

Enh Mix (Enhancer Mix Level)

Adjust the ratio with which the overtones generated by the enhancer are combined with the direct sound.

Flg Dly (Flanger Pre Delay Time)

Adjust the time delay from when the direct sound begins until the flanger sound is heard.

Flg Rate (Flanger Rate)

Adjust the modulation speed of the flanger effect.

Flg Depth (Flanger Depth)

Adjust the modulation depth of the flanger effect.

Flg Fbk (Flanger Feedback Level)

Adjust the proportion (%) of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.

Flg Bal (Flanger Balance) #
Adjust the volume balance between the enhancer sound that is sent through the flanger and the enhancer sound that is not sent through the flanger. With a setting of "D100:0W," only the enhancer sound will be output. With a setting of "D0:100W," only the enhancer sound that is sent through the flanger will be output.

Level (Output Level)
Adjust the output level.

34: ENHANCR→DELAY (Enhancer→Delay)

This effect connects an enhancer and a delay in series.

Enh Sens (Enhancer Sensitivity) #
Adjust the sensitivity of the enhancer.

Enh Mix (Enhancer Mix Level)
Adjust the ratio with which the overtones generated by the enhancer are combined with the direct sound.

DelayTime
Adjust the time delay from when the direct sound begins until the delay sound is heard.

Delay Fbk (Delay Feedback Level)
Adjust the proportion (%) of the delay sound that is fed back into the delay input. Negative (-) settings will invert the phase.

Dly HFDmp (Delay HF Damp)
Adjust the frequency above which delayed sound fed back to the delay input will be cut. If you do not want to cut the high frequencies of the delay feedback, set this parameter to BYPASS.

Delay Bal (Delay Balance) #
Adjust the volume balance between the enhancer sound that is sent through the delay and the enhancer sound that is not sent through the delay. With a setting of "D100:0W," only the enhancer sound will be output. With a setting of "D0:100W," only the enhancer sound that is sent through the delay will be output.

Level (Output Level)
Adjust the output level.

35: CHORUS→DELAY (Chorus→Delay)

This effect connects a chorus and a delay unit in series.

Cho Delay (Chorus Pre Delay Time)
Adjust the time delay from when the direct sound begins until the chorus sound is heard.

Cho Rate (Chorus Rate)
Adjust the modulation speed of the chorus effect.

Cho Depth (Chorus Depth)
Adjust the modulation depth of the chorus effect.

Cho Bal (Chorus Balance) #
Adjust the volume balance between the direct sound and the chorus sound. With a setting of "D100:0W," only the direct sound will be output. With a setting of "D0:100W," only the chorus sound will be output.

DelayTime
Adjust the time delay from when the direct sound begins until the delay sound is heard.

Delay Fbk (Delay Feedback Level)
Adjust the proportion (%) of the delay sound that is fed back into the delay input. Negative (-) settings will invert the phase.

Dly HFDmp (Delay HFDamp)
Adjust the frequency above which delayed sound fed back to the delay input will be cut. If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.

Delay Bal (Delay Balance) #
Adjust the volume balance between the chorus sound that is sent through the delay and the chorus sound that is not sent through the delay. With a setting of "D100:0W," only the chorus sound will be output. With a setting of "D0:100W," only the chorus sound that is sent through the delay will be output.

Level (Output Level)
Adjust the output level.

36: FLANGER→DELAY

This effect connects a flanger and a delay in series.

Flg Delay (Flanger Pre Delay Time)
Adjust the time delay from when the direct sound begins until the flanger sound is heard.

Flg Rate (Flanger Rate)
Adjust the modulation speed of the flanger effect.

Flg Depth (Flanger Depth)
Adjust the modulation depth of the flanger effect.

Flg Fbk (Flanger Feedback Level)
Adjust the proportion (%) of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.

Flg Bal (Flanger Balance) #
Adjust the volume balance between the direct sound and the flanger sound. With a setting of "D100:0W," only the direct sound will be output. With a setting of "D0:100W," only the flanger sound will be output.

DelayTime
Adjust the time delay from when the direct sound begins until the delay sound is heard.

Delay Fbk (Delay Feedback Level)
Adjust the proportion (%) of the delay sound that is fed back into the delay input. Negative (-) settings will invert the phase.

Dly HFDmp (Delay HFDamp)
Adjust the frequency above which delayed sound fed back to the delay input will be cut. If you do not want to cut the high frequencies of the delay feedback, set this parameter to BYPASS.

Delay Bal (Delay Balance) #

Adjust the volume balance between the flanger sound that is sent through the delay and the flanger sound that is not sent through the delay. With a setting of "D100:0W," only the flanger sound will be output. With a setting of "D0:100W," only the flanger sound that is sent through the delay will be output.

Level (Output Level)

Adjust the output level.

37: CHORUS→FLANGR (Chorus→Flanger)

This effect connects a chorus and a flanger in series.

Cho Delay (Chorus Pre Delay Time)

Adjust the time delay from when the direct sound begins until the chorus sound is heard.

Cho Rate (Chorus Rate)

Adjust the modulation speed of the chorus effect.

Cho Depth (Chorus Depth)

Adjust the modulation depth of the chorus effect.

Cho Bal (Chorus Balance) #

Adjust the volume balance between the direct sound and the chorus sound. With a setting of "D100:0W," only the direct sound will be output. With a setting of "D0:100W," only the chorus sound will be output.

Flg Delay (Flanger Pre Delay Time)

Adjust the time delay from when the direct sound begins until the flanger sound is heard.

Flg Rate (Flanger Rate)

Adjust the modulation speed of the flanger effect.

Flg Depth (Flanger Depth)

Adjust the modulation depth of the flanger effect.

Flg Fbk (Flanger Feedback Level)

Adjust the proportion (%) of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.

Flg Bal (Flanger Balance) #

Adjust the volume balance between the chorus sound and the chorus sound that is passed through the flanger. With a setting of "D100:0W," only the chorus sound will be output. With a setting of "D0:100W," only the chorus sound that passes through the flanger will be output.

Level (Output Level)

Adjust the output level.

38: CHORUS/DELAY

This effect connects a chorus and a delay in parallel. The parameters are the same as for "35: CHORUS→DELAY." However, the parameter adjusts the volume balance between the direct sound and the delay sound.

39: FLANGER/DELAY

This effect connects a flanger and a delay in parallel. The parameters are the same as for "36: FLANGER→DELAY." However, the Delay Bal parameter adjusts the volume balance between the direct sound and the delay sound.

40: CHORUS/FLANGER

This effect connects a chorus and a flanger in parallel. The parameters are the same as for "37: CHORUS→FLANGER." However, the Flg Bal parameter adjusts the volume balance between the direct sound and the flanger sound.

41: STEREO PHASER

With the Step effects, you can also make stepped changes in the pitch of sounds to which the Phaser effect is applied.

Type (Phaser Type)

Selects the type of Phaser.
Type 2 adds more of the Phaser effect to the high frequencies than Type 1.

Mode

Selects the number of stages in the phaser (4/8).

Polarity

Selects whether the left and right phase of the modulation will be the same or the opposite.
INVERSE: The left and right phase will be opposite. When using a mono source, this spreads the sound.
SYNCHRO: The left and right phase will be the same. Select this when inputting a stereo source.

Manual #

Adjusts the center frequency to which the phase effect is applied.

Rate (Phaser Rate) #

Adjust the frequency of modulation.

➔ Rate parameter can be set as a note-value of a tempo. In this case, specify the value of the desired note.

Depth (Phaser Depth)

Adjust the depth of modulation.

Resonance (Phaser Resonance)

Adjust the amount of feedback for the phaser. Higher settings will give the sound a stronger character.

Cross Fbk (Cross Feedback Level)

Adjust the proportion (%) of the phaser sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Step Rate #

Adjust the frequency of pitch change.

➔ Step Rate parameter can be set as a note-value of a tempo. In this case, specify the value of the desired note.

StpRateSw (Step Rate Switch)
This setting determines whether the pitch is changed in a stepped fashion (ON) or not (OFF).

Mix (Mix Level)
Adjust the volume of the phase-shifted sound, relative to the direct sound.

Low Gain
Adjust the low frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the high frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the high frequency range.

Level (Output Level)
Adjust the output level.

42: KEYSYNC FLANG (Keysync Flanger)

Keysync Flanger controls the Flanger by resetting the effect at the volume of the sound input to the effects device, restarting from the same pitch each time the Flanger is reset.
This parameter lets your playing dynamics on the keyboard control the flanger effect.

Pre Delay (Pre Delay Time)
Adjust the time delay from the direct sound until the flanger sound is heard.

Rate (LFO Rate) #
Adjust the modulation frequency of the flanger sound.

➔ Rate parameter can be set as a note-value of a tempo. In this case, specify the value of the desired note.

Depth (LFO Depth)
Adjust the modulation depth of the flanger sound.

Feedback #
Adjust the proportion (%) of the flanger sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase. Higher settings will produce a more distinctive sound.

Phase
Adjust the spaciousness of the flanger sound.

Filter (Filter Type)
OFF: A filter will not be used.
LPF: The frequency region above the Cutoff setting will be cut.
HPF: The frequency region below the Cutoff setting will be cut.

Cutoff (Cutoff Frequency)
Sets the cutoff frequency when a specific frequency band is cut off by a filter.

Step Rate #
Adjust the frequency of pitch change.

➔ Step Rate parameter can be set as a note-value of a tempo. In this case, specify the value of the desired note.

StpRateSw (Step Rate Switch)
This setting determines whether the pitch is changed in a stepped fashion (ON) or not (OFF).

Key Sync (Keysync Switch)
Determines whether the Flanger LFO is reset according to the input sound (ON) or not (OFF).

Threshold (Keysync Threshold)
Adjust the volume level for which reset will be applied.

KSync Phs (Keysync Phase)
Sets the LFO phase when the LFO is reset.

Low Gain
Adjust the low frequency range gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the high frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the high frequency range.

Balance #
Adjusts the volume balance between the direct sound and the flanger sound.
With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W the flanger sound will be output.

Level (Output Level)
Adjust the output level.

43: FORMANT FILTR (Formant Filter)

This adds a vowel character to the sound, making it similar to a human voice.

Drive Sw (Drive Switch)
Turns Drive on/off.

Drive #
Specifies the depth of distortion. The volume will change together with the degree of distortion.

Vowel 1
Selects the vowel 1.

Vowel 2
Selects the vowel 2.

Rate #
Sets the frequency at which the two vowels will be switched.

➔ Rate parameter can be set as a note-value of a tempo. In this case, specify the value of the desired note.

Depth #
Sets the effect depth.

Key Sync (KeySync Switch)
Determines whether the LFO for switching the vowels is reset according to the input sound (ON) or not (OFF).

Threshold (Keysync Threshold)
Specifies the volume level for which reset will be applied.

Manual #

Sets the point at which the two vowels will be switched. When set to 50, Vowels 1 and 2 switched in the same amount of time. Setting this higher than 50 increases the time for Vowel 1; setting this lower than 50 decreases the time for Vowel 1.

Low Gain

Specifies the low frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the low frequency range.

High Gain

Specifies the high frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the high frequency range.

Pan (Output Pan)

Specifies the stereo location of the output sound. L64 is far left, 0 is center, and 63R is far right.

Level (Output Level)

Specifies the output volume.

44: RING MODULAT (Ring Modulator)

Ring Modulator is an effect which applies amplitude modulation (AM) to the input signal, producing bell-like sounds.

You can also change the modulation frequency according to the volume of the sound input to the effects device.

Frequency #

Sets the frequency at which modulation will be applied.

Modulate (Modulator)

Selects the input of the direct sound for the envelope controlling the modulation.

When set to SOURCE, the frequency is modulated according to the envelope of the sound input to the multi-effects.

When set to DIRECT, the frequency is modulated according to the sound as it is without passing through the effects.

Mod_Mon (Modulator Monitor)

Determines whether the input sound used as the modulator is output (ON) or not (OFF).

Sens (Sensitivity) #

Sets the amount of frequency modulation applied.

Polarity

Determines whether the frequency modulation moves towards higher frequencies (UP) or lower frequencies (DOWN).

Low Gain

Adjust the low frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the low frequency range.

High Gain

Adjust the high frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance) #

Sets the volume balance between the direct sound and the effect sound.

With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W the effect sound will be output.

Level (Output Level)

Adjust the output level.

45: MULTI TAP DLY (Multi Tap Delay)

The Multi Tap Delay has four delays. Each of the Delay Time parameters can be specified as a note length of the selected tempo. You can also set the panning and level of each delay sound.

Delay 1 (Delay Time 1)

Adjust the delay time from the direct sound until the delay 1 sound is heard.

Delay 2 (Delay Time 2)

Adjust the delay time from the direct sound until the delay 2 sound is heard.

Delay 3 (Delay Time 3)

Adjust the delay time from the direct sound until the delay 3 sound is heard.

Delay 4 (Delay Time 4)

Adjust the delay time from the direct sound until the delay 4 sound is heard.

→ Delay 1–4 parameters can be set as a note-value of a tempo. In this case, specify the value of the desired note.

Pan 1 (Output Pan 1)

Sets the stereo position of the delay sound (Delay 1). A setting of L64 is far left, 0 is center, and 63R is far right.

Pan 2 (Output Pan 2)

Sets the stereo position of the delay sound (Delay 2). A setting of L64 is far left, 0 is center, and 63R is far right.

Pan 3 (Output Pan 3)

Sets the stereo position of the delay sound (Delay 3). A setting of L64 is far left, 0 is center, and 63R is far right.

Pan 4 (Output Pan 4)

Sets the stereo position of the delay sound (Delay 4). A setting of L64 is far left, 0 is center, and 63R is far right.

Level 1

Adjust the output level of delay 1.

Level 2

Adjust the output level of delay 2.

Level 3

Adjust the output level of delay 3.

Level 4

Adjust the output level of delay 4.

Feedback #

Adjust the proportion (%) of the delay sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

HF Damp

Adjust the frequency at which the high frequency range of the delayed sound returned to the input will be cut.
If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.

Low Gain

Adjust the low frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the low frequency range.

High Gain

Adjust the high frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance) #

Sets the volume balance between the direct sound and the effect sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the effect sound will be output.

Level (Output Level)

Adjust the output level.

46: REVERSE DELAY

Reverse Delay is a delay effect that adds the reverse of the input sound as the delay sound.

Delay 1 (Delay Time 1)

Adjust the delay time from the direct sound until the delay 1 sound is heard.

Delay 2 (Delay Time 2)

Adjust the delay time from the direct sound until the delay 2 sound is heard.

Delay 3 (Delay Time 3)

Adjust the delay time from the direct sound until the delay 3 sound is heard.

Delay 4 (Delay Time 4)

Adjust the delay time from the direct sound until the delay 4 sound is heard.

➔ Delay 1–4 parameters can be set as a note-value of a tempo. In this case, specify the value of the desired note.

Feedback 1:4 #

Adjust the proportion (%) of the delay 1 and 4 sound that is fed back into the effect. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

HF Damp 1:4

Adjust the frequency above which delayed sound (Delay 1, 4) fed back to the delay input will be cut.
If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.

Threshold (Threshold Level)

Specify the volume level at which the reverse delay will begin to apply.

Pan 1:2:3 (Output Pan 1:2:3)

Adjust the pan of delay sound (Delay 1–3). A setting of L64 is far left, 0 is center, and 63R is far right.

Level 1:2:3

Adjust the output level of delay 1, 2 and 3.

Low Gain

Adjust the low frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the low frequency range.

High Gain

Adjust the high frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance) #

Sets the volume balance between the direct sound and the effect sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the effect sound will be output.

Level (Output Level)

Adjust the output level.

47: SHUFFLE DELAY

Shuffle Delay adds a shuffle to the delay sound, giving the sound a bouncy delay effect with a swing feel.

Delay (Delay Time) #

Adjust the delay time from the direct sound until the delay sound is heard.

➔ Delay parameter can be set as a note-value of a tempo. In this case, specify the value of the desired note.

Shuffle (Shuffle Rate) #

Sets the ratio (as a percentage) of the time that elapses before the sound plays in Delay B relative to the time that elapses before the sound plays in Delay A. When set to 50%, the delay times are the same.

Accel (Acceleration)

Adjust the time over which the Delay Time will change from the current setting to a newly specified setting. The rate of change for the Delay Time directly affects the rate of pitch change.

Feedback #

Adjust the proportion (%) of the delay sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

HF Damp

Adjust the frequency above which delayed sound fed back to the delay input will be cut.
If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.

Pan A

Adjust the pan of the delay A sound.

Pan B

Adjust the pan of the delay B sound.

Level Bal (Level Balance)

Sets the balance for the levels of the delay A and the delay B.

Low Gain

Adjust the low frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the high frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance) #
Sets the volume balance between the direct sound and the effect sound.
With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the effect sound will be output.

Level (Output Level)
Adjust the output level.

48: 3D DELAY

This applies a 3D effect to the delay sound. The delay sound will be positioned 90 degrees left and 90 degrees right.

Delay C (Delay Time Center)
Adjust the delay time from the direct sound until the center delay sound is heard.

Delay L (Delay Time Left)
Adjust the delay time from the direct sound until the left delay sound is heard.

Delay R (Delay Time Right)
Adjust the delay time from the direct sound until the right delay sound is heard.

➔ Delay C, Delay L and Delay R parameters can be set as a note-value of a tempo. In this case, specify the value of the desired note.

Feedback #
Adjust the proportion (%) of the delay sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Level C (Level Center)
Adjust the volume of the center delay sound.

Level L (Level Left)
Adjust the volume of the left delay sound.

Level R (Level Right)
Adjust the volume of the right delay sound.

HF Damp
Adjust the frequency above which delayed sound fed back to the delay input will be cut.
If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.

Out (Output Mode)
Adjust the method that will be used to hear the output sound. The optimal 3D effect will be achieved if you select SPEAKER when using speakers, or PHONES when using headphones.

Low Gain
Adjust the low frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the high frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance) #
Sets the volume balance between the direct sound and the effect sound.
With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the effect sound will be output.

Level (Output Level)
Adjust the output level.

49: 3V PCH SHIFT (3 Voice Pitch Shifter)

A Pitch Shifter shifts the pitch of the direct sound. This 3-voice pitch shifter has three pitch shifters, and can add three pitch shifted sounds to the direct sound.

Coarse 1:2:3 (Coarse Pitch 1:2:3)
Specify the pitch in semitones for pitch shift 1–3.

Fine 1:2:3 (Fine Pitch 1:2:3)
Make fine adjustments to the pitch of the pitch shift 1–3 in 2-cent steps.

PreDelay1:2:3 (Pre Delay Time 1:2:3)
Specify the time delay from the direct sound until the pitch shift 1–3 sound is heard.

Feedback1:2:3 (Feedback Level 1:2:3)
Adjust the proportion (%) of the pitch shift 1–3 sound that is fed back into the effect.

Pan 1:2:3 (Output Pan 1:2:3)
Specify the stereo location of the pitch shift 1–3 sound. L64 is far left, 0 is center, and 63R is far right.

Level 1:2:3 (Level 1:2:3)
Specify the volume of the pitch shift 1–3.

Mode (Pitch Shifter Mode)
Higher settings of this parameter will result in slower response, but steadier pitch.

Balance (Effect Balance)
Sets the volume balance between the direct sound and the effect sound.
With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W the effect sound will be output.

Level (Output Level)
Specifies the output volume.

50: LOFI COMPRESS

This is an effect that intentionally degrades the sound quality.

Type (LoFi Type)
Lowers the audio quality. The audio quality will worsen as this setting is increased.

PreFilter (Pre Filter Type)
Adjust the type of filter that will be applied before the sound passes through the Lo-Fi effect.

PostFilter1 (Post Filter 1 Type)
Adjust the type of filter that will be applied after the sound passes through the Lo-Fi effect.

Post Fltr2 (Post Filter 2 Type)
OFF: A post filter 2 will not be used.
LPF: The frequency region above the Frequency (Cutoff Frequency) setting will be cut.
HPF: The frequency region below the Frequency (Cutoff Frequency) setting will be cut.

Frequency (Cutoff Frequency)
Sets the cutoff frequency when a specific frequency band is cut off by a filter.

Low Gain
Adjust the low frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the high frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance) #
Sets the volume balance between the direct sound and the effect sound.
With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the effect sound will be output.

Pan (Output Pan)
Adjust the stereo location of the output sound. A setting of L64 is far left, 0 is center, and 63R is far right.

Level (Output Level)
Adjust the output level.

51: LOFI NOISE

In addition to a Lo-Fi effect, this effect also generates various types of noise, such as radio noise and disc noise.

Type (LoFi Type)
Lowers the audio quality. The audio quality will worsen as this setting is increased.

PstFilter (Post Filter Type)
OFF: A filter will not be used.
LPF: The frequency region above the Frequency (Cutoff Frequency) setting will be cut.
HPF: The frequency region below the Frequency (Cutoff Frequency) setting will be cut.

Frequency (Cutoff Frequency)
Sets the cutoff frequency when a specific frequency band is cut off by a filter.

Radio Dtn (Radio Detune) #
Simulates the tuning noise of a radio. As this value is raised, the tuning will drift further.

Noise Lvl (Noise Level)
Adjust the volume of the radio noise.

Disc Type (Disc Noise Type)
Selects the type of record noise. The frequency at which the noise is heard will depend on the selected type.

Disc LPF (Disc Low Pass Filter)
Adjust the cutoff frequency of the low pass filter that is applied to the record noise.

Disc Lvl (Disc Noise Level)
Adjust the volume of the record noise.

Low Gain
Adjust the low frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the high frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the high frequency range.

Balance (Effect Balance) #
Sets the volume balance between the direct sound and the effect sound.
With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the effect sound will be output.

Pan (Output Pan)
Adjust the stereo position of the delay sound. A setting of L64 is far left, 0 is center, and 63R is far right.

Level (Output Level)
Adjust the output level.

52: SP SIMULATOR (Speaker Simulator)

Speaker Simulator is an effect that simulates the speaker type and mic settings used to record the speaker sound.

Sp Type (Speaker Type)
Select the type of speaker. The specifications of each type are as follows. The speaker column indicates the diameter of each speaker unit (in inches) and the number of units.

Type	Cabinet	Speaker	Microphone
SMALL 1	small open-back enclosure	10	dynamic mic
SMALL 2	small open-back enclosure	10	dynamic mic
MIDDLE	open back enclosure	12 x 1	dynamic mic
JC-120	open back enclosure	12 x 2	dynamic mic
BUILT IN 1	open back enclosure	12 x 2	dynamic mic
BUILT IN 2	open back enclosure	12 x 2	condenser mic
BUILT IN 3	open back enclosure	12 x 2	condenser mic
BUILT IN 4	open back enclosure	12 x 2	condenser mic
BUILT IN 5	open back enclosure	12 x 2	condenser mic
BG STACK 1	sealed enclosure	12 x 4	condenser mic
BG STACK 2	large sealed enclosure	12 x 4	condenser mic
MS STACK 1	large sealed enclosure	12 x 4	condenser mic
MS STACK 2	large sealed enclosure	12 x 4	condenser mic
METAL STACK	large double stack	12 x 4	condenser mic
2-STACK	large sealed enclosure	12 x 4	condenser mic
3-STACK	large sealed enclosure	12 x 4	condenser mic

Mic Set (Mic Setting)
Adjust the location of the mic that is recording the sound of the speaker. This can be adjusted in three steps, with the mic becoming more distant in the order of 1, 2, and 3.

Mic Lvl (Mic Level) #
Adjust the volume of the microphone.

Dir Lvl (Direct Level) #
Adjust the volume of the direct sound.

Level (Output Level) #
Adjust the output level.

53: OVERDRIVE 2

This is an overdrive that provides heavy distortion.

Drive #
Adjust the amount of distortion. The volume will change together with the degree of distortion.

Level (Output Level)
Adjust the output level.

Low Gain
Adjust the low frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the high frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the high frequency range.

Amp Sw (Amp Simulator Switch)
Turns the Amp Simulator on/off.

Amp Type (Amp Simulator Type)
Adjust the type of guitar amp.
SMALL: small amp
BUILT-IN: single-unit type amp
2-STACK: large double stack amp
3-STACK: large triple stack amp

Tone
Adjust the sound quality of the Overdrive effect.

Pan (Output Pan) #
Adjust the stereo location of the output sound. A setting of L64 is far left, 0 is center, and 63R is far right.

54: DISTORTION 2

This is a distortion effect that provides heavy distortion.

Drive #
Adjust the amount of distortion. The volume will change together with the degree of distortion.

Level (Output Level)
Adjust the output level.

Low Gain
Adjust the low frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the high frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the high frequency range.

Amp Sw (Amp Simulator Switch)
Turns the Amp Simulator on/off.

Amp Type (Amp Simulator Type)
Adjust the type of guitar amp.
SMALL: small amp
BUILT-IN: single-unit type amp
2-STACK: large double stack amp
3-STACK: large triple stack amp

Tone
Adjust the sound quality of the Overdrive effect.

Pan (Output Pan) #
Adjust the stereo location of the output sound. A setting of L64 is far left, 0 is center, and 63R is far right.

55: STEREO COMPRESSOR

Sustain
Adjust the time over which low level sounds are boosted until they reach the specified volume.

Attack (Attack Time)
Adjust the attack time of an input sound.

Post Gain
Adjust the output gain.

Low Gain
Adjust the low frequency gain.
Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the high frequency gain.
Positive (+) settings will emphasize (boost) the high frequency range.

Level (Output Level) #
Adjust the output level.

56: STEREO LIMITER

Threshold (Threshold Level)
Adjust the volume at which compression will begin.

Release (Release Time)
Adjust the time from when the volume falls below the Threshold Level until compression is no longer applied.

Ratio (Compression Ratio)
Adjust the compression ratio.

Post Gain
Adjust the output gain.

Low Gain
Adjust the low frequency gain.
Positive (+) settings will emphasize (boost) the low frequency range.

High Gain

Adjust the high frequency gain.
Positive (+) settings will emphasize (boost) the high frequency range.

Level (Output Level) #

Adjust the output level.

57: GATE

The Gate effect cuts the reverb's delay according to the volume of the sound input to the effects device. Use this in situations such as when you want to force a decrease in the decay sound.

Key

Selects the input of the sound that acts as the trigger closing the gate.
When set to SOURCE, the gate is closed by the sound input to the Multi-effects.
When set to DIRECT, the gate is closed by the direct sound that bypasses the multi-effects.

Threshold (Key Threshold)

Sets the volume level at which the gate begins to close.

Monitor (Key Monitor)

Determines whether the sound used as the gate trigger is output (ON) or not (OFF).

Mode

GATE: Gate Reverb. When the source volume falls below a certain level, the gate closes, giving the effect of the reverb sound being cut with a gate reverb.
DUCK: Ducking Reverb. When the source volume gets high enough, the gate closes, which gives a ducking reverb-type effect. Stop the reverb sound only when input loud sound so that prevent the play sound become unclear.

Attack (Attack Time)

Sets the time it takes the gate fully opens after being triggered.

Hold (Hold Time)

Sets the time it takes the gate starts closing after the instant the direct sound goes under the threshold level.

Release (Release Time)

Sets the time it takes the gate fully closes after passes by the hold time.

Balance (Effect Balance) #

Sets the volume balance between the direct sound and the effect sound.
With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the effect sound will be output.

Level (Output Level)

Adjust the output level.

58: SLICER

By applying successive cuts to the sound, this effect turns a conventional sound into a sound that appears to be played as a backing phrase. This is especially effective when applied to sustain-type sounds.

Beat 1-1–4-4

For a single measure containing four quarter notes, this sets the level of each sixteenth-note when the measure is divided into sixteenth notes. When set to 0, no sound is output.

Rate #

Determines the cycle for one measure.

➔ Rate parameter can be set as a note-value of a tempo. In this case, specify the value of the desired note.

Attack

Sets the speed at which the volume changes between beats. The higher the value, the faster the volume changes.

Reset #

Selects the input of the sound that acts as the trigger resetting the one-measure pattern.
When set to OFF, the pattern is not reset, even if the input is present.
When set to SOURCE, the pattern is reset by the sound input to the multi-effects.
When set to DIRECT, the Pattern is reset by the direct sound that bypasses the multi-effects.

Threshold (Reset Threshold)

Sets the volume level at which the reset begins.

Monitor (Reset Monitor Switch)

Determines whether the sound used as the reset trigger is output (ON) or not (OFF). This parameter is disabled when Reset parameter is set to OFF or SRC.

Mode

Sets the manner in which the volume changes as one beat progresses to the next.
LEGATO: The change in volume from one beat's level to the next remains unaltered. If the level of a following beat is the same as the one preceding it, then there is no change in volume.
SLASH: The level is momentarily set to 0 before progressing to the level for the next beat. This change in volume occurs even if the level of a following beat is the same as the one preceding it.

Shuffle #

Sets the timing of volume changes in levels for even-numbered Beats (Beat 1-2/Beat 1-4/Beat 2-2/...). The higher the value selected, the later the timing with which the beat progresses.

Level (Output Level)

Adjust the output level.

59: ISOLATOR

An equalizer which cuts the volume greatly, allowing you to add a special effect to the sound by cutting the volume in varying ranges.

High Lvl (Level High) #

Mid Lvl (Level Middle) #

Low Lvl (Level Low) #

These boost and cut each of the High, Middle, and Low frequency ranges. At -60 dB, the sound becomes inaudible. 0 dB is equivalent to the input level of the sound.

AP Mid Sw (Anti Phase Middle Switch)

This turns the Anti-Phase function on and off and sets the level settings for the Middle frequency ranges. When turned on, the counter-channel of stereo sound is inverted and added to the signal.

AP Mid (Anti Phase Middle Level)

Sets the level of the separate midrange (Middle) anti-phase function. With some settings, you can get a sort of abstract sound in the specified Part.

Adjusting these levels for certain frequencies allows you to lend emphasis to specific parts. (This is effective only for stereo source.)

AP Low Sw (Anti Phase Low Switch)

This turns the Anti-Phase function on and off and sets the level settings for the Low frequency ranges. When turned on, the counter-channel of stereo sound is inverted and added to the signal.

AP Low Sw (Anti Phase Low Switch)

Sets the level of the separate Lowrange anti-phase function. With some settings, you can get a sort of abstract sound in the specified Part.

Adjusting these levels for certain frequencies allows you to lend emphasis to specific parts. (This is effective only for stereo source.)

Boost Sw (Low Booster Switch)

Adjust whether Low Booster will be used (ON) or not (OFF). This emphasizes the bottom to create a heavy bass sound.

Boost Lvl (Low Booster Level)

Adjust the level. Increasing this value gives you a heavier low end. (Depending on the Isolator and filter settings this effect may be hard to distinguish.)

Level (Output Level)

Adjust the output level.

60: 3D CHORUS

This applies a 3D effect to the chorus sound. The chorus sound will be positioned 90 degrees left and 90 degrees right.

Pre Delay (Pre Delay Time)

Adjust the time delay from the direct sound until when the chorus sound is heard.

Rate (LFO Rate) #

Adjust the modulation frequency of the chorus sound.

➔ Rate parameter can be set as a note-value of a tempo. In this case, specify the value of the desired note.

Depth (LFO Depth)

Adjust the modulation depth of the chorus sound.

Phase

Adjust the spaciousness of the chorus sound.

Fltr Type

OFF: A filter will not be used.

LPF: The frequency region above the Cutoff Freq setting will be cut.

HPF: The frequency region below the Cutoff Freq setting will be cut.

Cutoff (Cutoff Frequency)

Sets the cutoff frequency when a specific frequency band is cut off by a filter.

Out (Output Mode)

Adjust the method that will be used to hear the output sound. The optimal 3D effect will be achieved if you select SPEAKER when using speakers, or PHONES when using headphones.

Low Gain

Adjust the low frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the low frequency range.

High Gain

Adjust the high frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the high frequency range.

Balance #

Adjust the volume balance between the direct sound and the flanger sound.

With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the flanger sound will be output.

Level (Output Level)

Adjust the output level.

61: 3D FLANGER

This applies a 3D effect to the flanger sound. The flanger sound will be positioned 90 degrees left and 90 degrees right.

Pre Delay (Pre Delay Time)

Adjust the time delay from the direct sound until the flanger sound is heard.

Rate (LFO Rate) #

Adjust the modulation speed of the flanger sound.

➔ Rate parameter can be set as a note-value of a tempo. In this case, specify the value of the desired note.

Depth (LFO Depth)

Adjust the modulation depth of the flanger sound.

Feedback #

Adjust the proportion (%) of the flanger sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase. Higher settings will produce a more distinctive sound.

Phase

Adjust the spaciousness of the flanger sound.

Filter (Filter Type)

OFF: No filter is used.

LPF: The frequency region above the Cutoff Freq setting will be cut.

HPF: The frequency region below the Cutoff Freq setting will be cut.

Cutoff (Cutoff Frequency)
Sets the cutoff frequency when a specific frequency band is cut off by a filter.

StpRateSw (Step Rate Switch)
Determines whether the pitch is changed in a stepped fashion (ON) or not (OFF).

Step Rate #
Adjust the rate at which the pitch will change.

➔ Step Rate parameter can be set as a note-value of a tempo. In this case, specify the value of the desired note.

Out (Output Mode)
Adjust the method that will be used to hear the output sound. The optimal 3D effect will be achieved if you select SPEAKER when using speakers, or PHONES when using headphones.

Low Gain
Adjust the low frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the high frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the high frequency range.

Balance #
Adjust the volume balance between the direct sound and the flanger sound.
With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the flanger sound will be output.

Level (Output Level)
Adjust the output level.

62: TREMOLO

Tremolo cyclically modulates the volume to add tremolo effect to the sound.

Mod Wave (Modulation Wave)
TRI: The sound will be modulated like a triangle wave.
SQR: The sound will be modulated like a square wave.
SIN: The sound will be modulated like a sine wave.
SAW1/2: The sound will be modulated like a sawtooth wave. The teeth in SAW1 and SAW2 point at opposite directions.

Rate #
Adjust the frequency (speed) of the change.

➔ Rate parameter can be set as a note-value of a tempo. In this case, specify the value of the desired note.

Depth #
Sets the depth to which the effect is applied.

Low Gain
Adjust the low frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the high frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the high frequency range.

Level (Output Level)
Adjust the output level.

63: AUTO PAN

The Auto Pan effect cyclically modulates the stereo location of the sound.

Mod Wave (Modulation Wave)
TRI: The sound will be modulated like a triangle wave.
SQR: The sound will be modulated like a square wave.
SIN: The sound will be modulated like a sine wave.
SAW1/2: The sound will be modulated like a sawtooth wave. The teeth in SAW1 and SAW2 point at opposite directions.

Rate #
Adjust the frequency (speed) of the change.

➔ Rate parameter can be set as a note-value of a tempo. In this case, specify the value of the desired note.

Depth #
Sets the depth to which the effect is applied.

Low Gain
Adjust the low frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the low frequency range.

High Gain
Adjust the high frequency gain (amount of boost or cut). Positive (+) settings will emphasize (boost) the high frequency range.

Level (Output Level)
Adjust the output level.

64: SYM.RESONANCE (Sympathetic Resonance)

When you depress the damper pedal on an acoustic piano, the sound from the strings that were struck resonates with other strings, adding rich reverberations and broadness to the sound. This effect simulates the resonance, called "Sympathetic Resonance."

Depth
Adjust the depth of Sympathetic Resonance.

Damper
This is controlled by a normal damper pedal, with the resonance setting corresponding to the amount the pedal is pressed.

Pre LPF
This sets the reference frequency for the low-end input cutoff filter.

Pre HPF
This sets the reference frequency for the high-end input cutoff filter. When not cutting bass frequencies, set this to BYPASS.

Pkg Freq

This sets the reference frequency for the filter used in adjusting the specific range of frequencies.
When not cutting bass frequencies, set this to BYPASS.

Pkg Q

The range of frequencies is based on the frequency set in Pkg Freq.
The smaller the value, the narrower the band of frequencies that is adjusted with Pkg Gain.

Pkg Gain

This sets the gain (boost or cut) of the range of frequencies set in Pkg Freq and Pkg Q.

LF Damp

This sets the reference frequency used in cutting the resonance sound's low-end component.
When not cutting these sounds, set this to BYPASS.

HF Damp

This sets the reference frequency used in cutting the resonance sound's high-end component.
When not cutting these sounds, set this to BYPASS.

Diffusion

Adjusts the change in the density of the resonance over time.

65: OD→ROTARY (Overdrive→Rotary)

This effect connects an overdrive and a rotary in series.

Drive

Adjust the degree of distortion. The volume will change together with the degree of distortion.

OD OutLvl (Overdrive Level)

Sets the Overdrive output level.

OD Sw (Overdrive Switch)

Switches the Overdrive on and off.

Low Slow (Low Frequency Slow Rate)

Adjust the slow speed (SLOW) of the low frequency rotor.

Low Fast (Low Frequency Fast Rate)

Adjust the fast speed (FAST) of the low frequency rotor.

Low Accel (Low Frequency Acceleration)

Adjust the time it takes the low frequency rotor to reach the newly selected speed when switching from fast to slow (or slow to fast) speed. Lower values will require longer times.

Low Level (Low Frequency Level)

Adjust the volume of the low frequency rotor.

Hi Slow (High Frequency Slow Rate)

Adjust the slow speed (SLOW) of the high frequency rotor.

Hi Fast (High Frequency Fast Rate)

Adjust the fast speed (FAST) of the high frequency rotor.

Hi Accel (High Frequency Acceleration)

Adjust the time it takes the high frequency rotor to reach the newly selected speed when switching from fast to slow (or slow to fast) speed. Lower values will require longer times.

Hi Level (High Frequency Level)

Adjust the volume of the high frequency rotor.

Separate (Separation)

Adjust the spatial dispersion of the sound.

Speed #

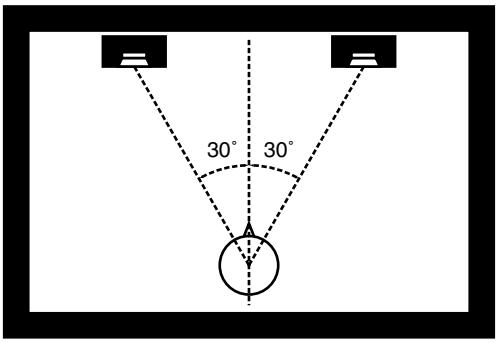
Simultaneously switch the rotational speed of the low frequency rotor and high frequency rotor.
SLOW: Slow down the rotation to the specified speed (the Low Slow/Hi Slow values).
FAST: Speed up the rotation to the specified speed (the Low Fast/Hi Fast values).

Level (Output Level) #

Adjust the output level.

When Using 3D Effects

The following three 3D effects utilize RSS (Roland Sound Space) technology to create a spaciousness that cannot be produced by delay, reverb, chorus, etc.
48: 3D DELAY
60: 3D CHORUS
61: 3D FLANGER
When using these effects, we recommend that you place your speakers as follows. Also, make sure that the speakers are at a sufficient distance from the walls on either side.



If the left and right speakers are too far apart, or if there is too much reverberation, the full 3D effect may not appear.
Each of these effects has an Out (Output Mode) parameter. If the sound from the OUTPUT jacks is to be heard through speakers, set this parameter to SPEAKER. If the sound is to be heard through headphones, set it to PHONES. This will ensure that the optimal 3D effect will be heard. If this parameter is not set correctly, the full 3D effect may not appear.

Effects Parameter List

→ "Making Multi-Effects Settings" (p. 77)

Multi-effects Types are indicated in bold characters.
"Parameter" refers to the parameter assigned to <Other Prm> in MFX Control.
"Value" refers to the values that can be set using the [CONTROL] knobs or in Value.

01: STEREO EQ

Parameter		Value
Low Freq	Low frequency	200, 400 Hz
Low Gain	Low gain	-15– +15 dB
High Freq	High frequency	2000, 4000, 8000 Hz
High Gain	High gain	-15– +15 dB
Mid1 Freq	Middle 1 frequency	200–8000Hz (*1)
Mid1 Q	Middle 1 Q	0.5, 1.0, 2.0, 4.0, 8.0
Mid1 Gain	Middle 1 gain	-15– +15 dB
Mid2 Freq	Middle 2 frequency	200-8000 Hz (*1)
Mid2 Q	Middle 2 Q	0.5, 1.0, 2.0, 4.0, 8.0
Mid2 Gain	Middle 2 gain	-15– +15 dB
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz

02: OVERDRIVE

Parameter		Value
Drive	Drive	0–127
Level	Output level	0–127
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Amp Type	Amp simulator type	SMALL, BUILT-IN, 2-STACK, 3-STACK
Pan	Output pan	L64–0–63R

03: DISTORTION

Parameter		Value
Drive	Drive	0–127
Level	Output level	0–127
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Amp Type	Amp simulator type	SMALL, BUILT-IN, 2-STACK, 3-STACK
Pan	Output pan	L64–0–63R

04: PHASER

Parameter		Value
Manual	Manual	100–8000 Hz
Rate	Rate	0.05–10.00 Hz
Depth	Depth	0–127
Resonance	Resonance	0–127
Mix	Mix level	0–127
Pan	Output pan	L64–0–63R
Level	Output level	0–127

05: SPECTRUM

Parameter		Value
Band 1	Band 1 gain	-15– +15 dB
Band 2	Band 2 gain	-15– +15 dB
Band 3	Band 3 gain	-15– +15 dB
Band 4	Band 4 gain	-15– +15 dB
Band 5	Band 5 gain	-15– +15 dB
Band 6	Band 6 gain	-15– +15 dB
Band 7	Band 7 gain	-15– +15 dB
Band 8	Band 8 gain	-15– +15 dB
Q	Q	0.5, 1.0, 2.0, 4.0, 8.0
Pan	Output pan	L64–0–63R
Level	Output level	0–127

06: ENHANCER

Parameter		Value
Sens	Sensitivity	0–127
Mix	Mix level	0–127
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Level	Output level	0–127

07: AUTO WAH

Parameter		Value
Filter	Filter type	LPF, BPF
Sens	Sensitivity	0–127
Manual	Manual	0–127
Peak	Peak	0–127
Rate	Rate	0.05–10.00 Hz
Depth	Depth	0–127
Level	Output level	0–127

08: ROTARY

Parameter		Value
Low Slow	Low frequency slow rate	0.05–10.00 Hz
Low Fast	Low frequency fast rate	0.05–10.00 Hz
Low Accel	Low frequency acceleration	0–15
Low Level	Low frequency level	0–127
Hi Slow	High frequency slow rate	0.05–10.00 Hz
Hi Fast	High frequency fast rate	0.05–10.00 Hz
Hi Accel	High frequency acceleration	0–15
Hi Level	High frequency level	0–127
Separate	Separation	0–127
Speed	Speed	SLOW, FAST
Level	Output level	0–127

09: COMPRESSOR

Parameter		Value
Attack	Attack time	0–127
Sustain	Sustain	0–127
Post Gain	Post gain	0, +6, +12, +18 dB
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Pan	Output pan	L64–0–63R
Level	Output level	0–127

10: LIMITER

Parameter		Value
Threshold	Threshold level	0–127
Ratio	Compression ratio	1.5:1, 2:1, 4:1, 100:1
Release	Release time	0–127
Post Gain	Post gain	0, +6, +12, +18 dB
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Pan	Output pan	L64–0–63R
Level	Output level	0–127

11: HEXA-CHORUS

Parameter		Value
Pre Delay	Pre delay time	0.0–100.0 ms
Rate	Rate	0.05–10.00 Hz
Depth	Depth	0–127
Delay Dev	Pre delay deviation	0–20
Depth Dev	Depth deviation	-20– +20
Pan Dev	Pan deviation	0-20
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

12: TREMOLO CHO

Parameter		Value
Pre Delay	Pre delay time	0.0–100.0 ms
Cho Rate	Chorus rate	0.05–10.00 Hz
Cho Depth	Chorus depth	0–127
Phase	Tremolo phase	0–180 degree
Trem Rate	Tremolo rate	0.05–10.00 Hz
Trem Sep	Tremolo separation	0–127
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

13: SPACE-D

Parameter		Value
Pre Delay	Pre delay time	0.0–100.0 ms
Rate	Rate	0.05–10.00 Hz
Depth	Depth	0–127
Phase	Phase	0–180 degree
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

14: STEREO CHORUS

Parameter		Value
Pre Delay	Pre delay time	0.0–100.0 ms
Rate	Rate	0.05–10.00 Hz
Depth	Depth	0–127
Phase	Phase	0–180 degree
Filter	Filter type	OFF, LPF, HPF
Cutoff	Cutoff frequency	200–8000 Hz (*1)
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz

15: ST.FLANGER

Parameter		Value
Pre Delay	Pre delay time	0.0–100.0 ms
Rate	Rate	0.05–10.00 Hz
Depth	Depth	0–127
Feedback	Feedback level	-98– +98%
Phase	Phase	0–180 degree
Filter	Filter type	OFF, LPF, HPF
Cutoff	Cutoff frequency	200–8000 Hz (*1)
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz

16: STEP FLANGER

Parameter		Value
Pre Delay	Pre delay time	0.0–100.0 ms
Rate	Rate	0.05–10.00 Hz
Depth	Depth	0–127
Feedback	Feedback level	-98– +98%
Phase	Phase	0–180 degree
Step Rate	Step rate	0.10–20.00 Hz, note
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

17: STEREO DELAY

Parameter		Value
Delay L	Delay time left	0.0–500.0 ms
Delay R	Delay time right	0.0–500.0 ms
Feedback	Feedback level	-98– +98%
Mode	Feedback mode	NORMAL, CROSS
Phase L	Feedback phase left	NORMAL, INVERT
Phase R	Feedback phase right	NORMAL, INVERT
HF Damp	HF damp	200–8000 Hz, BYPASS (*1)
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz, BYPASS

18: MOD DELAY

Parameter		Value
Delay L	Delay time left	0.0–500.0 ms
Delay R	Delay time right	0.0–500.0 ms
Feedback	Feedback level	-98– +98%
Mode	Feedback mode	NORMAL, CROSS
Rate	Rate	0.05–10.00 Hz
Depth	Depth	0–127
Phase	Phase	0–180 degree
HF Damp	HF damp	200–8000 Hz, BYPASS (*1)
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz, BYPASS

19: TRI TAP DLY

Parameter		Value
Delay C	Delay time center	200–1000 ms, note
Delay L	Delay time left	200–1000 ms, note
Delay R	Delay time right	200–1000 ms, note
Feedback	Feedback level	-98– +98%
Level C	Center level	0–127
Level L	Left level	0–127
Level R	Right level	0–127
HF Damp	HF damp	200–8000 Hz, BYPASS (*1)
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz, BYPASS

20: QUAD TAP DLY

Parameter		Value
Delay 1	Delay time 1	200–1000 ms, note
Delay 2	Delay time 2	200–1000 ms, note
Delay 3	Delay time 3	200–1000 ms, note
Delay 4	Delay time 4	200–1000 ms, note
Level 1	Level 1	0–127
Level 2	Level 2	0–127
Level 3	Level 3	0–127
Level 4	Level 4	0–127
Feedback	Feedback level	-98– +98%
HF Damp	HF damp	200–8000 Hz, BYPASS (*1)
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz, BYPASS

21: TIME CTRL DLY

Parameter		Value
Delay	Delay time	200–1000 ms
Accel	Acceleration	0–15
Feedback	Feedback level	-98– +98%
HF Damp	HF damp	200–8000 Hz, BYPASS (*1)
Pan	Output pan	L64–0–63R
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz, BYPASS

22: 2V PCH SHIFT

Parameter		Value
Coarse A	Coarse pitch A	-24– +12 semitone
Fine A	Fine pitch A	-100– +100 cent
Pan A	Output pan A	L64–0–63R
PreDelayA	Pre delay time A	0.0–500.0 ms
Coarse B	Coarse pitch B	-24– +12 semitone
Fine B	Fine pitch B	-100– +100 cent
Pan B	Output pan B	L64–0–63R
PreDelayB	Pre delay time B	0.0–500.0 ms
Mode	Pitch shifter mode	1, 2, 3, 4, 5
Level Bal	Level balance	A100:0B–A0:100B
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

23: FBK PCH SHIFT

Parameter		Value
Coarse	Coarse pitch	-24– +12 semitone
Fine	Fine pitch	-100– +100 cent
Feedback	Feedback level	-98– +98%
Pre Delay	Pre delay time	0.0-500.0 ms
Mode	Pitch shifter mode	1, 2, 3, 4, 5
Pan	Output pan	L64–0–63R
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

24: REVERB

Parameter		Value
Type	Reverb type	ROOM1, ROOM2, STAGE1, STAGE2, HALL1, HALL2
Pre Delay	Pre delay time	0.0–100.0 ms
Time	Reverb time	0–127
HF Damp	HF damp	200–8000 Hz, BYPASS (*1)
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz, BYPASS

25: GATED REVERB

Parameter		Value
Type	Gated Reverb type	NORMAL, REVERSE, SWEEP1, SWEEP2
Pre Delay	Pre delay time	0.0–100.0 ms
Gate Time	Gate time	5–500 ms
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

26: OD→CHORUS

Parameter		Value
OD Drive	Drive	0–127
OD Pan	Overdrive pan	L64–0–63R
Cho Delay	Chorus pre delay time	0.0–100.0 ms
Cho Rate	Chorus Rate	0.05–10.00 Hz
Cho Depth	Chorus depth	0–127
Cho Bal	Chorus balance	D100:0W-D0:100W
Level	Output level	0–127

27: OD→FLANGER

Parameter		Value
OD Drive	Drive	0–127
OD Pan	Overdrive pan	L64–0–63R
Flg Delay	Flanger pre delay time	0.0–100.0 ms
Flg Rate	Flanger rate	0.05–10.00 Hz
Flg Depth	Flanger depth	0–127
Flg Fbk	Flanger feedback level	-98– +98%
Flg Bal	Flanger balance	D100:0W–D0:100W
Level	Output level	0–127

28: OD→DELAY

Parameter		Value
OD Drive	Drive	0–127
OD Pan	Overdrive pan	L64–0–63R
DlyTime	Delay time	0.0-500.0 ms
Delay Fbk	Delay feedback level	-98– +98%
Dly HFDmp	Delay HF damp	200–8000 Hz, BYPASS (*1)
Delay Bal	Delay balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz, BYPASS

29: DIST→CHORUS

The parameters are essentially the same as “26: OD→CHORUS,” with the exception of the following two.
OD Drive→Dst Drive, OD Pan→Dist Pan

30: DIST→FLANGER

The parameters are essentially the same as “27: OD→FLANGER,” with the exception of the following two.
OD Drive→Dst Drive, OD Pan→Dist Pan

31: DISTORTION→DELAY

The parameters are essentially the same as “28: OVERDRIVE→DELAY,” with the exception of the following two.
OD Drive→Dst Drive, OD Pan→Dist Pan

32: ENHAN→CHORUS

Parameter		Value
Enh Sens	Enhancer sensitivity	0–127
Enh Mix	Enhancer mix level	0–127
Cho Delay	Chorus pre delay time	0.0-100.0 ms
Cho Rate	Chorus rate	0.05–10.00 Hz
Cho Depth	Chorus depth	0–127
Cho Bal	Chorus balance	D100:0W–D0:100W
Level	Output level	0–127

33: ENHAN→FLANGER

Parameter		Value
Enh Sens	Enhancer sensitivity	0–127
Enh Mix	Enhancer mix level	0–127
Flg Delay	Flanger pre delay time	0.0–100.0 ms
Flg Rate	Flanger rate	0.05–10.00 Hz
Flg Depth	Flanger depth	0–127
Flg Fbk	Flanger feedback level	-98– +98%
Flg Bal	Flanger balance	D100:0W–D0:100W
Level	Output level	0–127

34: ENHANCR→DELAY

Parameter		Value
Enh Sens	Enhancer sensitivity	0–127
Enh Mix	Enhancer mix level	0–127
DelayTime	Delay time	0.0–500.0 ms
Delay Fbk	Delay feedback level	-98– +98%
Dly HFDmp	Delay HF damp	200–8000 Hz, BYPASS (*1)
Delay Bal	Delay balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz, BYPASS

35: CHORUS→DELAY

Parameter		Value
Cho Delay	Chorus pre delay time	0.0–100.0 ms
Cho Rate	Chorus rate	0.05–10.00 Hz
Cho Depth	Chorus depth	0–127
Cho Bal	Chorus balance	D100:0W–D0:100W
DelayTime	Delay time	0.0–500.0 ms
Delay Fbk	Delay Feedback level	-98– +98%
Dly HFDmp	Delay HF damp	200–8000 Hz, BYPASS (*1)
Delay Bal	Delay balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz, BYPASS

36: FLANGER→DELAY

Parameter		Value
Flg Delay	Flanger pre delay time	0.0–100.0 ms
Flg Rate	Flanger rate	0.05–10.00 Hz
Flg Depth	Flanger depth	0–127
Flg Fbk	Flanger feedback level	-98– +98%
Flg Bal	Flanger balance	D100:0W–D0:100W
DelayTime	Delay time	0.0–500.0 ms
Delay Fbk	Delay feedback level	-98– +98%
Dly HFDmp	HF damp	200–8000 Hz, BYPASS (*1)
Delay Bal	Delay balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz, BYPASS

37: CHORUS→FLANGR

Parameter		Value
Cho Delay	Chorus pre delay time	0.0–100.0 ms
Cho Rate	Chorus rate	0.05–10.00 Hz
Cho Depth	Chorus depth	0–127
Cho Bal	Chorus balance	D100:0W–D0:100W
Flg Delay	Flanger pre delay time	0.0–100.0 ms
Flg Rate	Flanger rate	0.05–10.00 Hz
Flg Depth	Flanger depth	0–127
Flg Fbk	Flanger feedback level	-98– +98%
Flg Bal	Flanger balance	D100:0W–D0:100W
Level	Output level	0–127

38: CHORUS/DELAY

Refer to “35: CHORUS→DELAY.”

39: FLANGER/DELAY

Refer to “36: FLANGER→DELAY.”

40: CHORUS/FLANGR

Refer to “37: CHORUS→FLANGR.”

41: STEREO PHASER

Parameter		Value
Type	Phaser type	1, 2
Mode	Mode	4-STAGE, 8-STAGE
Polarity	Polarity	INVERSE, SYNCHRO
Manual	Manual	0–127
Rate	Phaser rate	0.05–10.00 Hz, note
Depth	Phaser depth	0–127
Resonance	Phaser resonance	0–127
Cross Fbk	Cross feedback level	-98– +98%
Step Rate	Step rate	0.1–20.0 Hz, note
StpRateSw	Step rate switch	OFF, ON
Mix	Mix level	0–127
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Level	Output level	0–127

42: KEYSYNC FLANG

Parameter		Value
Pre Delay	Pre delay time	0.0–100 ms
Rate	LFO rate	0.05–10.00 Hz, note
Depth	LFO depth	0–127
Feedback	Feedback	-98– +98%
Phase	Phase	0–180 degree
Filter	Filter type	OFF, LPF, HPF
Cutoff	Cutoff frequency	200–8000 Hz (*1)
Step Rate	Step rate	0.1–20.0 Hz, note
StpRateSw	Step rate switch	OFF, ON
Key Sync	Keysync switch	OFF, ON
Threshold	Keysync threshold	0–127
KSync Phs	Keysync phase	0–360 degree
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz

43: FORMANT FILTR

Parameter		Value
Drive Sw	Drive Switch	OFF, ON
Drive	Drive	0–127
Vowel 1	Vowel 1	a, e, i, o, u
Vowel 2	Vowel 2	a, e, i, o, u
Rate	Rate	0.05–10.00 Hz, note
Depth	Depth	0–127
Key Sync	Keysync switch	OFF, ON
Threshold	Keysync threshold	0–127
Manual	Manual	0–100
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Pan	Output pan	L64–63R
Level	Output level	0–127

44: RING MODULAT

Parameter		Value
Frequency	Frequency	0–127
Modulator	Modulator	OFF, SOURCE, DIRECT
Mod_Mon	Modulator monitor	OFF, ON
Sens	Sensitivity	0–127
Polarity	Polarity	UP, DOWN
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

45: MULTI TAP DLY

Parameter		Value
Delay 1	Delay time 1	0–1800 ms, note
Delay 2	Delay time 2	0–1800 ms, note
Delay 3	Delay time 3	0–1800 ms, note
Delay 4	Delay time 4	0–1800 ms, note
Pan 1	Output pan 1	L64–63R
Pan 2	Output pan 2	L64–63R
Pan 3	Output pan 3	L64–63R
Pan 4	Output pan 4	L64–63R
Level 1	Level 1	0–127
Level 2	Level 2	0–127
Level 3	Level 3	0–127
Level 4	Level 4	0–127
Feedback	Feedback	-98– +98%
HF Damp	HF Damp	200–8000 Hz, BYPASS (*1)
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz, BYPASS

46: REVERSE DELAY

Parameter		Value
Delay 1	Delay time 1	0–900 ms, note
Delay 2	Delay time 2	0–900 ms, note
Delay 3	Delay time 3	0–900 ms, note
Delay 4	Delay time 4	0–900 ms, note
Feedback 1	Feedback 1	-98– +98%
Feedback 4	Feedback 4	-98– +98%
HF Damp 1	HF Damp 1	200–8000 Hz, BYPASS (*1)
HF Damp 4	HF Damp 4	200–8000 Hz, BYPASS (*1)
Threshold	Threshold level	0–127
Pan 1:2:3	Output pan 1:2:3	L64–63R
Level 1:2:3	Level 1:2:3	0–127
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz, BYPASS

47: SHUFFLE DELAY

Parameter		Value
Delay	Delay time	0–1800 ms, note
Shuffle	Shuffle rate	0–100%
Accel	Acceleration	0–15
Feedback	Feedback	-98– +98%
HF Damp	HF Damp	200–8000 Hz, BYPASS (*1)
Pan A	Pan A	L64–63R
Pan B	Pan B	L64–63R
Level Bal	Level balance	A100:0B–A0:100B
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz, BYPASS

48: 3D DELAY

Parameter		Value
Delay C	Delay time center	0–1800 ms, note
Delay L	Delay time left	0–1800 ms, note
Delay R	Delay time right	0–1800 ms, note
Feedback	Feedback	-98– +98%
Level C	Level center	0–127
Level L	Level left	0–127
Level R	Level right	0–127
HF Damp	HF Damp	200–8000 Hz, BYPASS (*1)
Out	Output mode	SPEAKER, PHONES
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz, BYPASS

49: 3V PCH SHIFT

Parameter		Value
Coarse 1:2:3	Coarse pitch 1:2:3	-24– +12
Fine 1:2:3	Fine pitch 1:2:3	-100– +100 cent
PreDelay1:2:3	Pre Delay time 1:2:3	0.0–500 ms
Feesback1:2:3	Feedback level1:2:3	-98– +98%
Pan 1:2:3	Output pan 1:2:3	L64–63R
Level 1:2:3	Level 1:2:3	0–127
Mode	Pitch shifter mode	1, 2, 3, 4, 5
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

50: LOFI COMPRESS

Parameter		Value
Type	LoFi type	1–9
PreFilter	Pre filter type	TYPE1–6
PostFltr 1	Post filter 1 type	TYPE1–6
PostFltr 2	Post filter 2 type	OFF, LPF, HPF
Frequency	Post filter cutoff frequency	200-8000 Hz
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Pan	Output pan	L64–63R
Level	Output level	0–127

*1: Post filter cutoff frequency:200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz

51: LOFI NOISE

Parameter		Value
Type	LoFi type	1–9
Pst Filter	Post Filter type	OFF, LPF, HPF
Frequency	Post Filter cutoff frequency	200-8000 Hz:(*1)
Radio Dtn	Radio detune	0–127
Noise Lvl	Noise Level	0–127
Disc Type	Disc NoiseType	LP, EP, SP, RND
Disc LPF	Disc Noise LPF	200-8000 Hz BYPASS (*2)
Disc Lvl	Disc Noise Level	0-127
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Effect balance	D100:0W–D0:100W
Pan	Output pan	L64–63R
Level	Output level	0–127

*1: Post Filter cutoff frequency:200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz

*2: Disc noise LPF:200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz, BYPS

52: SP SIMULATOR

Parameter		Value
Sp Type	Speaker type	(*1)
Mic Set	Mic setting	1, 2, 3
Mic Lvl	Mic level	0-127
Dir Lvl	Direct level	0–127
Level	Output level	0–127

*1: SMALL 1, SMALL 2, MIDDLE, JC-120, BUILT IN 1, BUILT IN 2, BUILT IN 3, BUILT IN 4, BUILT IN 5, BG STACK 1, BG STACK 2, MS STACK 1, MS STACK 2, METAL STACK, 2-STACK, 3-STACK

53: OVERDRIVE 2

Parameter		Value
Drive	Drive	0–127
Level	Output level	0–127
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Amp Sw	Amp simulator switch	OFF, ON
Amp Type	Amp simulator type	SMALL, BUILT-IN, 2-STACK, 3-STACK
Tone	Tone	0–127
Pan	Output pan	L64–63R

54: DISTORTION 2

Parameter		Value
Drive	Drive	0–127
Level	Output level	0–127
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Amp Type	Amp simulator switch	OFF, ON
	Amp simulator type	SMALL, BUILT-IN, 2-STACK, 3-STACK
Tone	Tone	0–127
Pan	Output pan	L64–63R

55: ST.COMPRESSOR

Parameter		Value
Sustain	Sustain	0–127
Attack	Attack time	0–127
Post Gain	Post gain	0, +6, +12, +18
Low Gain	Low gain	-15– +15
High Gain	High gain	-15– +15
Level	Output level	0–127

56: ST.LIMITER

Parameter		Value
Threshold	Threshold level	0–127
Release	Release time	0–127
Ratio	Compression ratio	1.5:1, 2:1, 4:1, 100:1
Post Gain	Post gain	0, +6, +12, +18
Low Gain	Low gain	-15– +15
High Gain	High gain	-15– +15
Level	Output level	0–127

57: GATE

Parameter		Value
Key	Key	SOURCE, DIRECT
Threshold	Key threshold	0–127
Monitor	Key monitor	OFF, ON
Mode	Mode	GATE, DUCK
Attack	Attack time	0–127
Hold	Hold time	0–127
Release	Release time	0–127
Balance	Effect balance	D100:0W–D0:100W
Level	Output level	0–127

58: SLICER

Parameter		Value
Beat 1-1–4-4	Beat 1-1–4-4	0–127
Rate	Rate	0.05–10.0 Hz, note
Attack	Attack	0–127
Reset	Reset	OFF, SOURCE, DIRECT
Threshold	Reset threshold	0–127
Monitor	Reset monitor switch	OFF, ON
Mode	Mode	LEGATO, SLASH
Shuffle	Shuffle	0–127
Level	Output level	0–127

59: ISOLATOR

Parameter		Value
High Lvl	Level high	-60– +4 dB
Mid Lvl	Level middle	-60– +4 dB
Low Lvl	Level low	-60– +4 dB
AP Mid Sw	Anti phase middle switch	OFF, ON
AP Mid	Anti phase middle level	0–127
AP Low Sw	Anti phase low switch	OFF, ON
AP Low	Anti phase low level	0–127
Boost Sw	Low Booster switch	OFF, ON
Boost Sw	Low Booster level	0–127
Level	Output level	0–127

60: 3D CHORUS

Parameter		Value
Pre Delay	Pre delay time	0.0–100 ms
Rate	LFO rate	0.05–10.00 Hz, note
Depth	LFO depth	0–127
Phase	Phase	0–180 degree
Fltr Type	Filter Type	OFF, LPF, HPF
Cutoff	Cutoff frequency	200–8000 Hz (*1)
Out	Output mode	SPEAKER, PHONES
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz

61: 3D FLANGER

Parameter		Value
Pre Delay	Pre delay time	0.0–100 ms
Rate	LFO rate	0.05–10.00 Hz, note
Depth	LFO depth	0–127
Feedback	Feedback	-98– +98%
Phase	Phase	0–180 degree
Filter	Filter Type	OFF, LPF, HPF
Cutoff	Cutoff frequency	200-8000 Hz (*1)
StpRateSw	Step rate switch	OFF, ON
Step Rate	Step rate	0.1–20.0 Hz, note
Out	Output mode	SPEAKER, PHONES
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Balance	Balance	D100:0W–D0:100W
Level	Output level	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz

62: TREMOLO

Parameter		Value
Mod Wave	Modulation wave	TRI, SQR, SIN, SAW1, SAW2
Rate	Rate	0.05–10.0 Hz, note
Depth	Depth	0–127
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Level	Output level	0–127

63: AUTO PAN

Parameter		Value
Mod Wave	Modulation wave	TRI, SQR, SIN, SAW1, SAW2
Rate	Rate	0.05–10.0 Hz, note
Depth	Depth	0–127
Low Gain	Low gain	-15– +15 dB
High Gain	High gain	-15– +15 dB
Level	Output level	0–127

64: SYM. RESONANCE

Parameter		Value
Depth	Depth	0 - 127
Damper	Damper	0 - 127
Pre LPF	Pre LPF	*1
Pre HPF	Pre HPF	*1
Pkg Freq	Peeking Frequency	*2
Pkg Q	Peeking Q	0.5, 1.0, 2.0, 4.0, 8.0
Pkg Gain	Peeking Gain	-15 - +15 dB
LF Damp	LF Damp	*1
HF Damp	HF Damp	*1
Diffusion	Diffusion	0 - 64

*1: 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, 10000, 12500, 15000 Hz, BYPASS

*2: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz

65: OD→ROTARY

Parameter		Value
Drive	Drive	0 - 127
OD OutLvl	Overdrive Output Level	0 - 127
OD Sw	Overdrive Switch	OFF, ON
Low Slow	Low Frequency Slow Rate	0.05 - 10.00 Hz
Low Fast	Low Frequency Fast Rate	0.05 - 10.00 Hz
Low Accel	Low Frequency Acceleration	0 - 15
Low Level	Low Frequency Level	0 - 127
Hi Slow	High Frequency Slow Rate	0.05 - 10.00 Hz
Hi Fast	High Frequency Fast Rate	0.05 - 10.00 Hz
Hi Accel	High Frequency Acceleration	0 - 15
Hi Level	High Frequency Level	0 - 127
Separate	Separation	0 - 127
Speed	Speed	SLOW, FAST
Level	Output Level	0 - 127

→"Making Reverb Settings" (p. 78)

"Parameter" refers to the parameter assigned to <Other Prm>.
"Value" refers to the values that can be set in Value.

Reverb Parameters

REVERB

Parameter		Value
Type	Reverb/Delay type	ROOM1, ROOM2, STAGE1, STAGE2, HALL1, HALL2 DELAY, PAN-DLY
HF Damp	Reverb/Delay HF damp	200–8000 Hz, BYPASS (*1)
Feedback	Delay feedback	0–127

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz, BYPASS

SRV ROOM/SRV HALL/SRV PLATE

Parameter		Value
Size	Size	1–8
Diffusion	Reverb diffusion	0–127
Density	Reverb density	0–127
LF Damp	LF damp frequency	50–4000 Hz (*1)
LF Gain	LF damp gain	-36–0 dB
HF Damp	HF damp frequency	4000, 5000, 6400, 8000, 10000, 12500 Hz
HF Gain	HF damp gain	-36–0 dB

*1: 50, 64, 80, 100, 125, 160, 200, 250, 320, 1600, 2000, 2500, 3200, 4000 Hz

→"Setting Chorus and Delay" (p. 78)

"Parameter" refers to the parameter assigned to <Other Prm>.
"Value" refers to the values that can be set in Value.

Chorus Parameters

CHORUS

Parameter		Value
Depth	Chorus depth	0–127
Phase	Phase	0–180 degree
Flt Type	Filter type	OFF, LPF, HPF
Cutoff	Cutoff frequency	200–8000 Hz (*1)

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz

DELAY

Parameter		Value
Feedback	Feedback	-98– +98%
Level C	Delay center level	0–127
Level L	Delay left level	0–127
Level R	(Delay right level	0–127
HF Damp	HF damp	200–8000 Hz, BYPASS (*1)

*1: 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 Hz, BYPASS

Tone List

MSB: Bank Select MSB (Control Number: 0)

LSB: Bank Select LSB (Control Number: 32)

PC: Program Change

[PIANO]

No.	Tone Name	MSB	LSB	PC
001	St.Concert 1	087	064	001
002	St.Concert 2	087	064	002
003	Dynamic Pno1	087	064	003
004	Dynamic Pno2	087	064	004
005	St.Concert 3	087	064	005
006	BrightPiano1	087	064	006
007	BrightPiano2	087	064	007
008	MellowPiano1	087	064	008
009	MellowPiano2	087	064	009
010	Band Piano 1	087	064	010
011	Band Piano 2	087	064	011
012	Honky-Tonk	087	064	012
013	Rock Piano 1	087	064	013
014	Rock Piano 2	087	064	014
015	Soft Piano	087	064	015
016	Forte Grand1	087	064	016
017	Forte Grand2	087	064	017
018	Piano 1	087	064	018
019	Piano 2	087	064	019

[E.PIANO]

No.	Tone Name	MSB	LSB	PC
020	Rhodes 1	087	065	001
021	Rhodes 2	087	065	002
022	Stage Rhodes	087	065	003
023	Suitcase	087	065	004
024	NY Rhodes	087	065	005
025	Tremolo Rhd	087	065	006
026	Phaser Dyno	087	065	007
027	Rholitzer	087	065	008
028	Hit Rhodes	087	065	009
029	Wurly	087	065	010
030	Hard Wurly	087	065	011
031	60s E.Piano	087	065	012
032	S.A.E.P.1	087	065	013
033	S.A.E.P.2	087	065	014
034	D-50 E.Piano	087	065	015
035	FM E.Piano 1	087	065	016
036	FM E.Piano 2	087	065	017
037	Vibra Rhodes	087	065	018
038	E.Grand 1	087	065	019
039	E.Grand 2	087	065	020

[CLAV/MALLET]

No.	Tone Name	MSB	LSB	PC
040	Clav 1	087	066	001
041	Clav 2	087	066	002
042	Mute Clav	087	066	003
043	Phase Clav	087	066	004
044	WahWah Clav	087	066	005
045	Digital Clav	087	066	006
046	Analog Clav	087	066	007
047	Harpsichord	087	066	008
048	St.Harpsichd	087	066	009
049	Vibes	087	066	010
050	Warm Vibes	087	066	011
051	AmbienceVibe	087	066	012
052	Celesta	087	066	013
053	Marimba	087	066	014
054	Dyna Marimba	087	066	015
055	Islands Mlt	087	066	016
056	Morning Lite	087	066	017
057	Digi Bell	087	066	018
058	Air Bell	087	066	019
059	Chime Bells	087	066	020

[ORGAN]

No.	Tone Name	MSB	LSB	PC
060	Mellow Bars	087	067	001
061	Click Organ	087	067	002
062	Full Stops	087	067	003
063	Ballad B	087	067	004
064	Gospel Spin	087	067	005
065	Full Jazz	087	067	006
066	Perky B	087	067	007
067	British B	087	067	008
068	Rock Organ 1	087	067	009
069	Rock Organ 2	087	067	010
070	Rock Organ 3	087	067	011
071	The Big Spin	087	067	012
072	Rocker Spin	087	067	013
073	Purple Spin	087	067	014
074	96 Years	087	067	015
075	Surf's Up!	087	067	016
076	D-50 Organ	087	067	017
077	Cathedral	087	067	018
078	Nason Flute	087	067	019
079	Theater Org	087	067	020
080	Tone Wheel 1	087	067	021
081	Tone Wheel 2	087	067	022
082	Tone Wheel 3	087	067	023
083	Tone Wheel 4	087	067	024
084	Tone Wheel 5	087	067	025
085	Tone Wheel 6	087	067	026
086	Tone Wheel 7	087	067	027
087	Tone Wheel 8	087	067	028
088	Tone Wheel 9	087	067	029
089	Tone Wheel 10	087	067	030

[STRINGS]

No.	Tone Name	MSB	LSB	PC
090	RD Strings 1	087	068	001
091	RD Strings 2	087	068	002
092	Velo String	087	068	003
093	St.Strings	087	068	004
094	Fat Strings	087	068	005
095	RD Orchestra	087	068	006
096	ChmbrStrings	087	068	007
097	ChamberSect.	087	068	008
098	Str Quartet	087	068	009
099	Prelude	087	068	010
100	Marcato Str1	087	068	011
101	Marcato Str2	087	068	012
102	Film Strings	087	068	013
103	Film Octaves	087	068	014
104	Pizzicato	087	068	015
105	JP-8 Str 1	087	068	016
106	JP-8 Str 2	087	068	017
107	JP-8 Str 3	087	068	018
108	JP-8 Str 4	087	068	019
109	JP-8 Str 5	087	068	020

[PAD]

No.	Tone Name	MSB	LSB	PC
110	ClassicJPpad	087	069	001
111	Soft Pad 1	087	069	002
112	Soft Pad 2	087	069	003
113	Lunar Strngs	087	069	004
114	Morph Pad	087	069	005
115	Saw Strings	087	069	006
116	ORBit Pad	087	069	007
117	Spin Pad	087	069	008
118	Silky Way	087	069	009
119	Velcropad	087	069	010
120	Gluey Pad	087	069	011
121	Soundtraque	087	069	012
122	Combing	087	069	013
123	Glassy Pad	087	069	014
124	Glasswaves	087	069	015
125	JP-8Haunting	087	069	016
126	Earth Blow	087	069	017
127	JX SqrCarpet	087	069	018
128	Heirborne	087	069	019
129	SteppingPhsr	087	069	020

[GTR/BASS]

No.	Tone Name	MSB	LSB	PC
130	Nylon Gtr 1	087	070	001
131	Nylon Gtr 2	087	070	002
132	Steel Gtr	087	070	003
133	Solo Steel	087	070	004
134	Steel Away	087	070	005
135	12str Gtr	087	070	006
136	Jz Gtr Hall	087	070	007
137	LetterFrmPat	087	070	008
138	JC Strat	087	070	009
139	Clear Guitar	087	070	010
140	Searing Lead	087	070	011
141	Dist Gtr	087	070	012
142	Feed Me!	087	070	013
143	Blusey OD	087	070	014
144	RD Ac.Bass	087	070	015
145	RD Upright	087	070	016
146	Ac.Upright	087	070	017
147	RD Fretless	087	070	018
148	Fretless Dry	087	070	019
149	Finger Bass	087	070	020
150	Pick Bass	087	070	021
151	Slap Bass	087	070	022
152	MG Bs	087	070	023
153	Rubber Bass	087	070	024
154	Wonder Bass	087	070	025
155	Creamy Bass	087	070	026
156	Hefty Bass	087	070	027
157	House Bass	087	070	028
158	101 Bass	087	070	029
159	8VCO MonoSyn	087	070	030

[BRASS/WINDS]

No.	Tone Name	MSB	LSB	PC
160	R&R Brass	087	071	001
161	FullSt Brass	087	071	002
162	VoyagerBrass	087	071	003
163	Simply Brass	087	071	004
164	Bigband Sax	087	071	005
165	Soprano Sax	087	071	006
166	Alto Sax	087	071	007
167	Tenor Sax	087	071	008
168	Honker Bari	087	071	009
169	Flute	087	071	010
170	Oboe	087	071	011
171	ChamberWinds	087	071	012
172	Pan Pipes	087	071	013
173	Poly Brass	087	071	014
174	Rugby Horn	087	071	015
175	Afro Horns	087	071	016
176	Triumph Brs	087	071	017
177	Saw Brass 1	087	071	018
178	Saw Brass 2	087	071	019
179	OB Brass	087	071	020

[VOICE/SYNTH]

No.	Tone Name	MSB	LSB	PC
180	Jazz Scat	087	072	001
181	St.Choir	087	072	002
182	Aahs Vox	087	072	003
183	GregorianChr	087	072	004
184	Doo Bap Sw	087	072	005
185	Doo Dat Sw	087	072	006
186	Voice Oohs	087	072	007
187	Angels Sing	087	072	008
188	Beauty Vox	087	072	009
189	Synth Vox	087	072	010
190	Vox Bass	087	072	011
191	Saw Mass	087	072	012
192	Poly Rock	087	072	013
193	D-50 Stack	087	072	014
194	Galactic RD	087	072	015
195	SquareLead 1	087	072	016
196	SquareLead 2	087	072	017
197	MG Lead	087	072	018
198	SH-2000	087	072	019
199	Soaring Sync	087	072	020

[RHYTHM/GM2]

No.	Tone Name	MSB	LSB	PC
200	RD Pop Kit	086	064	001
201	RD Rock Kit	086	064	002
202	RD Jazz Kit	086	064	003
203	RD House Kit	086	064	004

<GM2 Rhythm Sets>

No.	Tone Name	MSB	LSB	PC
204	GM2 STANDARD	120	000	001
205	GM2 ROOM	120	000	009
206	GM2 POWER	120	000	017
207	GM2 ELECTRIC	120	000	025
208	GM2 ANALOG	120	000	026
209	GM2 JAZZ	120	000	033
210	GM2 BRUSH	120	000	041
211	GM2 ORCHSTRA	120	000	049
212	GM2 SFX	120	000	057

<GM2 Tones>

No.	Tone Name	MSB	LSB	PC
213	Piano 1	121	000	001
214	Piano 1w	121	001	001
215	European Pf	121	002	001
216	Piano 2	121	000	002
217	Piano 2w	121	001	002
218	Piano 3	121	000	003
219	Piano 3w	121	001	003
220	Honky-tonk	121	000	004
221	Honky-tonk 2	121	001	004
222	E.Piano 1	121	000	005
223	St.Soft EP	121	001	005
224	FM+SA EP	121	002	005
225	Wurly	121	003	005
226	E.Piano 2	121	000	006
227	Detuned EP 2	121	001	006
228	St.FM EP	121	002	006
229	EP Legend	121	003	006
230	EP Phase	121	004	006
231	Harpsichord	121	000	007
232	Coupled Hps.	121	001	007
233	Harpsi.w	121	002	007
234	Harpsi.o	121	003	007
235	Clav.	121	000	008
236	Pulse Clav	121	001	008
237	Celesta	121	000	009
238	Glockenspiel	121	000	010
239	Music Box	121	000	011
240	Vibraphone	121	000	012
241	Vibraphone w	121	001	012
242	Marimba	121	000	013
243	Marimba w	121	001	013
244	Xylophone	121	000	014
245	Tubular-bell	121	000	015
246	Church Bell	121	001	015
247	Carillon	121	002	015
248	Santur	121	000	016
249	Organ 1	121	000	017
250	Trem. Organ	121	001	017
251	60's Organ 1	121	002	017
252	70's E.Organ	121	003	017
253	Organ 2	121	000	018
254	Chorus Or.2	121	001	018
255	Perc. Organ	121	002	018
256	Organ 3	121	000	019
257	Church Org.1	121	000	020
258	Church Org.2	121	001	020
259	Church Org.3	121	002	020
260	Reed Organ	121	000	021
261	Puff Organ	121	001	021
262	Accordion Fr	121	000	022
263	Accordion It	121	001	022
264	Harmonica	121	000	023
265	Bandoneon	121	000	024
266	Nylon-str.Gt	121	000	025
267	Ukulele	121	001	025
268	Nylon Gt.o	121	002	025
269	Nylon Gt.2	121	003	025
270	Steel-str.Gt	121	000	026
271	12-str.Gt	121	001	026
272	Mandolin	121	002	026
273	Steel + Body	121	003	026
274	Jazz Gt.	121	000	027
275	Pedal Steel	121	001	027
276	Clean Gt.	121	000	028
277	Chorus Gt.	121	001	028
278	Mid Tone GTR	121	002	028
279	Muted Gt.	121	000	029
280	Funk Pop	121	001	029
281	Funk Gt.2	121	002	029
282	Jazz Man	121	003	029
283	Overdrive Gt	121	000	030
284	Guitar Pinch	121	001	030
285	DistortionGt	121	000	031
286	Feedback Gt.	121	001	031
287	Dist Rtm GTR	121	002	031
288	Gt.Harmonics	121	000	032
289	Gt. Feedback	121	001	032
290	Acoustic Bs.	121	000	033
291	Fingered Bs.	121	000	034
292	Finger Slap	121	001	034
293	Picked Bass	121	000	035
294	Fretless Bs.	121	000	036
295	Slap Bass 1	121	000	037
296	Slap Bass 2	121	000	038
297	Synth Bass 1	121	000	039
298	SynthBass101	121	001	039
299	Acid Bass	121	002	039
300	Clavi Bass	121	003	039
301	Hammer	121	004	039
302	Synth Bass 2	121	000	040

No.	Tone Name	MSB	LSB	PC
303	Beef FM Bass	121	001	040
304	RubberBass 2	121	002	040
305	Attack Pulse	121	003	040
306	Violin	121	000	041
307	Slow Violin	121	001	041
308	Viola	121	000	042
309	Cello	121	000	043
310	Contrabass	121	000	044
311	Tremolo Str	121	000	045
312	PizzicatoStr	121	000	046
313	Harp	121	000	047
314	Yang Qin	121	001	047
315	Timpani	121	000	048
316	Orche str	121	000	049
317	Orchestra	121	001	049
318	60s Strings	121	002	049
319	Slow Strings	121	000	050
320	Syn.Strings1	121	000	051
321	Syn.Strings3	121	001	051
322	Syn.Strings2	121	000	052
323	Choir Aahs	121	000	053
324	Chorus Aahs	121	001	053
325	Voice Oohs	121	000	054
326	Humming	121	001	054
327	SynVox	121	000	055
328	Analog Voice	121	001	055
329	OrchestraHit	121	000	056
330	Bass Hit	121	001	056
331	6th Hit	121	002	056
332	Euro Hit	121	003	056
333	Trumpet	121	000	057
334	Dark Trumpet	121	001	057
335	Trombone	121	000	058
336	Trombone 2	121	001	058
337	Bright Tb	121	002	058
338	Tuba	121	000	059
339	MutedTrumpet	121	000	060
340	MuteTrumpet2	121	001	060
341	French Horns	121	000	061
342	Fr.Horn 2	121	001	061
343	Brass 1	121	000	062
344	Brass 2	121	001	062
345	Synth Brass1	121	000	063
346	Pro Brass	121	001	063
347	Oct SynBrass	121	002	063
348	Jump Brass	121	003	063
349	Synth Brass2	121	000	064
350	SynBrass sfz	121	001	064
351	Velo Brass 1	121	002	064
352	Soprano Sax	121	000	065
353	Alto Sax	121	000	066
354	Tenor Sax	121	000	067
355	Baritone Sax	121	000	068
356	Oboe	121	000	069
357	English Horn	121	000	070
358	Bassoon	121	000	071
359	Clarinet	121	000	072
360	Piccolo	121	000	073
361	Flute	121	000	074
362	Recorder	121	000	075
363	Pan Flute	121	000	076
364	Bottle Blow	121	000	077
365	Shakuhachi	121	000	078
366	Whistle	121	000	079
367	Ocarina	121	000	080
368	Square Wave	121	000	081
369	MG Square	121	001	081
370	2600 Sine	121	002	081
371	Saw Wave	121	000	082
372	OB2 Saw	121	001	082
373	Doctor Solo	121	002	082
374	Natural Lead	121	003	082
375	SequencedSaw	121	004	082
376	Syn.Calliope	121	000	083
377	Chiffer Lead	121	000	084
378	Charang	121	000	085
379	Wire Lead	121	001	085
380	Solo Vox	121	000	086
381	5th Saw Wave	121	000	087
382	Bass & Lead	121	000	088
383	Delayed Lead	121	001	088
384	Fantasia	121	000	089
385	Warm Pad	121	000	090
386	Sine Pad	121	001	090
387	Polysynth	121	000	091
388	Space Voice	121	000	092
389	Itopia	121	001	092
390	Bowed Glass	121	000	093
391	Metal Pad	121	000	094
392	Halo Pad	121	000	095
393	Sweep Pad	121	000	096
394	Ice Rain	121	000	097
395	Soundtrack	121	000	098
396	Crystal	121	000	099
397	Syn Mallet	121	001	099
398	Atmosphere	121	000	100
399	Brightness	121	000	101
400	Goblin	121	000	102
401	Echo Drops	121	000	103
402	Echo Bell	121	001	103
403	Echo Pan	121	002	103
404	Star Theme	121	000	104
405	Sitar	121	000	105
406	Sitar 2	121	001	105
407	Banjo	121	000	106
408	Shamisen	121	000	107
409	Koto	121	000	108
410	Taisho Koto	121	001	108
411	Kalimba	121	000	109
412	Bagpipe	121	000	110
413	Fiddle	121	000	111
414	Shanai	121	000	112
415	Tinkle Bell	121	000	113
416	Agogo	121	000	114
417	Steel Drums	121	000	115
418	Woodblock	121	000	116
419	Castanets	121	001	116
420	Taiko	121	000	117
421	Concert BD	121	001	117
422	Melo. Tom 1	121	000	118
423	Melo. Tom 2	121	001	118
424	Synth Drum	121	000	119
425	808 Tom	121	001	119
426	Elec Perc	121	002	119
427	Reverse Cym.	121	000	120
428	Gt.FretNoise	121	000	121
429	Gt.Cut Noise	121	001	121
430	String Slap	121	002	121
431	Breath Noise	121	000	122
432	Fl.Key Click	121	001	122
433	Seashore	121	000	123
434	Rain	121	001	123
435	Thunder	121	002	123
436	Wind	121	003	123
437	Stream	121	004	123
438	Bubble	121	005	123
439	Bird	121	000	124
440	Dog	121	001	124
441	Horse-Gallop	121	002	124
442	Bird 2	121	003	124
443	Telephone 1	121	000	125
444	Telephone 2	121	001	125
445	DoorCreaking	121	002	125
446	Door	121	003	125
447	Scratch	121	004	125
448	Wind Chimes	121	005	125
449	Helicopter	121	000	126
450	Car-Engine	121	001	126
451	Car-Stop	121	002	126
452	Car-Pass	121	003	126
453	Car-Crash	121	004	126
454	Siren	121	005	126
455	Train	121	006	126
456	Jetplane	121	007	126
457	Starship	121	008	126
458	Burst Noise	121	009	126
459	Applause	121	000	127
460	Laughing	121	001	127
461	Screaming	121	002	127
462	Punch	121	003	127
463	Heart Beat	121	004	127
464	Footsteps	121	005	127
465	Gun Shot	121	000	128
466	Machine Gun	121	001	128
467	Laser	121	002	128
468	Explosion	121	003	128

Rhythm Set List

* ---: No sound.

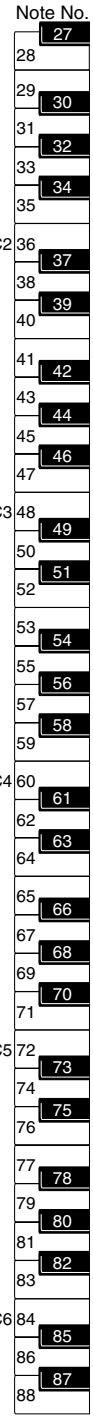
* [EXC]: will not sound simultaneously with other percussion instruments of the same number.

Note No.	RD Pop Kit		RD Rock Kit		RD Jazz Kit		RD House Kit	
21	R&B Snare		R&B Snare		R&B Snare		Dance Kick	
22	-----		-----		-----		MC-500 Beep 1	
23	-----		-----		-----		MC-500 Beep 2	
C1 24	-----		-----		Jazz Swish		Concert Snare	
25	-----		-----		Jazz Tap 1		Snare Roll	
26	-----		-----		Jazz Tap 2		Finger Snap	
27	Finger Snap		Finger Snap		Finger Snap		High-Q	
28	707 Claps		707 Claps		707 Claps		Slap	
29	Hand Clap 1		Hand Clap 1		Hand Clap		Scratch Push	
30	Hand Clap 2		Hand Clap 2		Hand Clap2		Scratch Pull	
31	Hand Clap 3		Hand Clap 3		Hand Clap		Sticks	
32	Pop Pedal HH	[EXC1]	Pop Pedal HH	[EXC1]	Pop Pedal HH	[EXC1]	Square Click	
33	Hand Clap 4		Hand Clap 4		Gospel Hand Clap		Metronome Click	
34	Snare Roll		Snare Roll		Snare Roll		Metronome Bell	
35	Pop Kick 1		Rock Kick 1		Pop Kick		House Kick 1	
C2 36	Pop Kick 2		Rock Kick 2		Pop Kick		House Kick 2	
37	Pop Side Stick		Rock Side Stick		Jazz Snare Swing		House Snare Rim	
38	Pop Sanre 1		Rock Sanre 1		Jazz Sanre 1		House Snare 1	
39	Pop Snare Ghost		Rock Snare Ghost		Pop Snare Swing		House Claps	
40	Pop Snare 2		Rock Snare 2		Jazz Sanre 2		House Snare 2	
41	Pop Low Tom Flm		Rock Low Tom Flm		Jazz Low Tom Flm		House Low Tom 1	
42	Pop CHH 1	[EXC1]	Rock CHH 1	[EXC1]	Pop CHH 1	[EXC1]	House Closed Hi-Hat	[EXC1]
43	Pop Low Tom		Rock Low Tom		Jazz Low Tom		House Low Tom 2	
44	Pop CHH 2	[EXC1]	Rock CHH 2	[EXC1]	Pop CHH 2	[EXC1]	House Pedal Hi-Hat	[EXC1]
45	Pop Mid Tom Flm		Rock Mid Tom Flm		Jazz Mid Tom Flm		House Mid Tom 1	
46	Pop OHH	[EXC1]	Rock OHH	[EXC1]	Pop OHH	[EXC1]	House Open Hi-Hat	[EXC1]
47	Pop Mid Tom		Rock Mid Tom		Jazz Mid Tom		House Mid Tom 2	
C3 48	Pop High Tom Flm		Rock High Tom Flm		Jazz High Tom Flm		House High Tom 1	
49	Pop Crash Cymbal 1		Rock Crash Cymbal		Jazz Crash Cymbal 1		House Crash Cymbal	
50	Pop High Tom		Rock High Tom		Jazz High Tom		House High Tom 2	
51	Pop Ride Cymbal 1		Pop Ride Cymbal 2		Jazz Ride Cymbal 1		House Ride Cymbal	
52	Pop Chinees Cymbal		Rock Chinees Cymbal		Jazz Chinees Cymbal		Reverse Cymbal	
53	Pop Ride Bell		Rock Ride Bell		Jazz Ride Cymbal 2		House Ride Bell	
54	Tambourine		Tambourine		Tambourine		Shake Tambourine	
55	Pop Splash Cymbal		Rock Splash Cymbal		Pop Splash Cymbal		House Splash Cymbal	
56	Cha Cha Cowbell		Cha Cha Cowbell		Cha Cha Cowbell		House Cowbell	
57	Pop Crash Cymbal 2		Rock Chinees Cymbal 2		Jazz Crash Cymbal 2		House Crash Cymbal	
58	Vibra-slap		Vibra-slap		Vibra-slap		Vibra-slap	
59	Pop Ride Cymbal 2		Pop Ride Cymbal 1		Pop Ride Cymbal 2		Pop Ride Cymbal 2	
C4 60	High Bongo		High Bongo		High Bongo		House High Bongo	
61	Low Bongo		Low Bongo		Low Bongo		House Low Bongo	
62	Mute Conga		Mute Conga		Mute Conga		House High Conga	
63	High Conga		High Conga		High Conga		House Mute Conga	
64	Low Conga		Low Conga		Low Conga		House Low Conga	
65	High Timbale		High Timbale		High Timbale		High Timbale	
66	Low Timbale		Low Timbale		Low Timbale		Low Timbale	
67	High Agogo		High Agogo		High Agogo		High Agogo	
68	Low Agogo		Low Agogo		Low Agogo		Low Agogo	
69	Shaker 2		Shaker 2		Shaker 2		Cabasa	
70	Shaker 3		Shaker 3		Shaker 3		House Maracas	
71	Short Hi Whistle	[EXC2]	Short Hi Whistle	[EXC2]	Short Hi Whistle	[EXC2]	Short High Whistle	[EXC2]
C5 72	Long Low Whistle	[EXC2]	Long Low Whistle	[EXC2]	Long Low Whistle	[EXC2]	Long Low Whistle	[EXC2]
73	Short Guiro	[EXC3]	Short Guiro	[EXC3]	Short Guiro	[EXC3]	Short Guiro	[EXC3]
74	Long Guiro	[EXC3]	Long Guiro	[EXC3]	Long Guiro	[EXC3]	House Guiro	[EXC3]
75	Claves		Claves		Claves		House Claves	
76	High Wood Block		High Wood Block		High Wood Block		High Wood Block	
77	Low Wood Block		Low Wood Block		Low Wood Block		Low Wood Block	
78	Mute Cuica	[EXC4]	Mute Cuica	[EXC4]	Mute Cuica	[EXC4]	High Hoo	[EXC4]
79	Open Cuica	[EXC4]	Open Cuica	[EXC4]	Open Cuica	[EXC4]	Low Hoo	[EXC4]
80	Mute Triangle	[EXC5]	Mute Triangle	[EXC5]	Mute Triangle	[EXC5]	Electric Mute Triangle	[EXC5]
81	Open Triangle	[EXC5]	Open Triangle	[EXC5]	Open Triangle	[EXC5]	Electric Open Triangle	[EXC5]
82	Shaker 1		Shaker 1		Shaker 1		Shaker	
83	Jingle Bell		Jingle Bell		Jingle Bell		Jingle Bell	
C6 84	Bell Tree		Bell Tree		Bell Tree		Bell Tree	
85	Castanets		Castanets		Castanets		Castanets	
86	Mute Surdo	[EXC6]	Mute Surdo	[EXC6]	Mute Surdo	[EXC6]	Mute Surdo	[EXC6]
87	Open Surdo	[EXC6]	Open Surdo	[EXC6]	Open Surdo	[EXC6]	Open Surdo	[EXC6]
88	Cana		Cana		Cana		Cana	

Note No.	RD Pop Kit	RD Rock Kit	RD Jazz Kit	RD House Kit
89	Falamenco Hi-Timbale	Falamenco Hi-Timbale	Falamenco Hi-Timbale	Falamenco Hi-Timbale
90	Falamenco Lo-Timbale	Falamenco Lo-Timbale	Falamenco Lo-Timbale	Falamenco Lo-Timbale
91	Falamenco Tmbl Flam	Falamenco Tmbl Flam	Falamenco Tmbl Flam	Falamenco TmblFlam
92	Shekere 1	Shekere 1	Shekere 1	Shekere 1
93	Shekere 2	Shekere 2	Shekere 2	Shekere 2
94	Low Bongo Mute	Low Bongo Mute	Low Bongo Mute	Low Bongo Mute
95	-----	-----	-----	LoFi Snare 1
C7 96	-----	-----	------	Jungle Snare
97	-----	-----	-----	Techni Hit
98	-----	-----	-----	Philly Hit
99	-----	-----	-----	TR-808 Kick
100	-----	-----	-----	TR-808 Kick 2
101	-----	-----	-----	Jungle Kick
102	-----	-----	-----	Techno Kick
103	-----	-----	-----	Rock Snare Dry
104	-----	-----	-----	Electric Snare
105	-----	-----	-----	Jungle Snare 2
106	-----	-----	-----	Slappy
107	Wah Gtr Noise 1	Wah Gtr Noise 1	Wah Gtr Noise 1	Wah Gtr Noise 1
C8 108	Wah Gtr Noise 2	Wah Gtr Noise 2	Wah Gtr Noise 2	Wah Gtr Noise 2

Tone List

Note No.	GM2 STANDARD		GM2 ROOM		GM2 POWER		GM2 ELECTRIC		GM2 ANALOG	
27	High-Q		High-Q		High-Q		High-Q		High-Q	
28	Slap		Slap		Slap		Slap		Slap	
29	ScratchPush	[EXC7]	ScratchPush	[EXC7]	ScratchPush	[EXC7]	ScratchPush	[EXC7]	ScratchPush	[EXC7]
30	ScratchPull	[EXC7]	ScratchPull	[EXC7]	ScratchPull	[EXC7]	ScratchPull	[EXC7]	ScratchPull	[EXC7]
31	Sticks		Sticks		Sticks		Sticks		Sticks	
32	SquareClick		SquareClick		SquareClick		SquareClick		SquareClick	
33	Mtrnm.Click		Mtrnm.Click		Mtrnm.Click		Mtrnm.Click		Mtrnm.Click	
34	Mtrnm. Bell		Mtrnm. Bell		Mtrnm. Bell		Mtrnm. Bell		Mtrnm. Bell	
35	Mix Kick		Mix Kick		Mix Kick		Mix Kick		Mix Kick	
C2 36	Standard KK1		Standard KK1		Power Kick1		Elec Kick 1		TR-808 Kick	
37	Side Stick		Side Stick		Side Stick		Side Stick		808 Rimshot	
38	Standard SN1		Standard SN1		Dance Snare1		Elec. Snare		808 Snare 1	
39	909 HandClap		909 HandClap		909 HandClap		909 HandClap		909 HandClap	
40	Elec Snare 3		Elec Snare 3		Elec Snare 3		Elec Snare 2		Elec Snare 3	
41	Real Tom 6		Room Tom 5		Rock Tom 4		Synth Drum 2		808 Tom 2	
42	Close HiHat2	[EXC1]	Close HiHat2	[EXC1]	Close HiHat2	[EXC1]	Close HiHat2	[EXC1]	TR-808 CHH	[EXC1]
43	Real Tom 6		Room Tom 5		Rock Tom 4		Synth Drum 2		808 Tom 2	
44	Pedal HiHat2	[EXC1]	Pedal HiHat2	[EXC1]	Pedal HiHat2	[EXC1]	Pedal HiHat2	[EXC1]	808__chh	[EXC1]
45	Real Tom 4		Room Tom 2		Rock Tom 4		Synth Drum 2		808 Tom 2	
46	Open HiHat2	[EXC1]	Open HiHat2	[EXC1]	Open HiHat2	[EXC1]	Open HiHat2	[EXC1]	TR-808 OHH	[EXC1]
47	Real Tom 4		Room Tom 2		Rock Tom 4		Synth Drum 2		808 Tom 2	
C3 48	Real Tom 1		Room Tom 2		Rock Tom 1		Synth Drum 2		808 Tom 2	
49	Crash Cym.1		Crash Cym.1		Crash Cym.1		Crash Cym.1		808 Crash	
50	Real Tom 1		Room Tom 2		Rock Tom 1		Synth Drum 2		808 Tom 2	
51	Ride Cymbal		Ride Cymbal		Ride Cymbal		Ride Cymbal		Ride Cymbal	
52	ChinaCymbal		ChinaCymbal		ChinaCymbal		ReverseCymbl		ChinaCymbal	
53	Ride Bell		Ride Bell		Ride Bell		Ride Bell		Ride Bell	
54	Tambourine		Tambourine		Tambourine		Tambourine		Tambourine	
55	Splash Cym.		Splash Cym.		Splash Cym.		Splash Cym.		Splash Cym.	
56	Cowbell		Cowbell		Cowbell		Cowbell		808cowbe	
57	Crash Cym.2		Crash Cym.2		Crash Cym.2		Crash Cym.2		Crash Cym.2	
58	Vibraslap		Vibraslap		Vibraslap		Vibraslap		Vibraslap	
59	Ride Cymbal		Ride Cymbal		Ride Cymbal		Ride Cymbal		Ride Cymbal	
C4 60	Bongo High		Bongo High		Bongo High		Bongo High		Bongo High	
61	Bongo Lo		Bongo Lo		Bongo Lo		Bongo Lo		Bongo Lo	
62	Mute H.Conga		Mute H.Conga		Mute H.Conga		Mute H.Conga		808 Conga	
63	Conga Hi Opn		Conga Hi Opn		Conga Hi Opn		Conga Hi Opn		808 Conga	
64	Conga Lo Opn		Conga Lo Opn		Conga Lo Opn		Conga Lo Opn		808 Conga	
65	High Timbale		High Timbale		High Timbale		High Timbale		High Timbale	
66	Low Timbale		Low Timbale		Low Timbale		Low Timbale		Low Timbale	
67	Agogo		Agogo		Agogo		Agogo		Agogo	
68	Agogo		Agogo		Agogo		Agogo		Agogo	
69	Cabasa		Cabasa		Cabasa		Cabasa		Cabasa	
70	Maracas		Maracas		Maracas		Maracas		808marac	
71	ShrtWhistle	[EXC2]	ShrtWhistle	[EXC2]	ShrtWhistle	[EXC2]	ShrtWhistle	[EXC2]	ShrtWhistle	[EXC2]
C5 72	LongWhistle	[EXC2]	LongWhistle	[EXC2]	LongWhistle	[EXC2]	LongWhistle	[EXC2]	LongWhistle	[EXC2]
73	Short Guiro	[EXC3]	Short Guiro	[EXC3]	Short Guiro	[EXC3]	Short Guiro	[EXC3]	Short Guiro	[EXC3]
74	Long Guiro	[EXC3]	Long Guiro	[EXC3]	Long Guiro	[EXC3]	Long Guiro	[EXC3]	Long Guiro	[EXC3]
75	Claves		Claves		Claves		Claves		Claves	
76	Woodblock		Woodblock		Woodblock		Woodblock		Woodblock	
77	Woodblock		Woodblock		Woodblock		Woodblock		Woodblock	
78	Mute Cuica	[EXC4]	Mute Cuica	[EXC4]	Mute Cuica	[EXC4]	Mute Cuica	[EXC4]	Mute Cuica	[EXC4]
79	Open Cuica	[EXC4]	Open Cuica	[EXC4]	Open Cuica	[EXC4]	Open Cuica	[EXC4]	Open Cuica	[EXC4]
80	MuteTriangl	[EXC5]	MuteTriangl	[EXC5]	MuteTriangl	[EXC5]	MuteTriangl	[EXC5]	MuteTriangl	[EXC5]
81	OpenTriangl	[EXC5]	OpenTriangl	[EXC5]	OpenTriangl	[EXC5]	OpenTriangl	[EXC5]	OpenTriangl	[EXC5]
82	Shaker		Shaker		Shaker		Shaker		Shaker	
83	Jingle Bell		Jingle Bell		Jingle Bell		Jingle Bell		Jingle Bell	
C6 84	Bell Tree		Bell Tree		Bell Tree		Bell Tree		Bell Tree	
85	Castanets		Castanets		Castanets		Castanets		Castanets	
86	Mute Surdo	[EXC6]	Mute Surdo	[EXC6]	Mute Surdo	[EXC6]	Mute Surdo	[EXC6]	Mute Surdo	[EXC6]
87	Open Surdo	[EXC6]	Open Surdo	[EXC6]	Open Surdo	[EXC6]	Open Surdo	[EXC6]	Open Surdo	[EXC6]
88	-----		-----		-----		-----		-----	



Note No.	GM2 JAZZ		GM2 BRUSH		GM2 ORCHSTRA		GM2 SFX	
27	High-Q		High-Q		Close HiHat2	[EXC1]	-----	
28	Slap		Slap		Pedal HiHat2	[EXC1]	-----	
29	ScratchPush	[EXC7]	ScratchPush	[EXC7]	Open HiHat2	[EXC1]	-----	
30	ScratchPull	[EXC7]	ScratchPull	[EXC7]	Ride Cymbal		-----	
31	Sticks		Sticks		Sticks		-----	
32	SquareClick		SquareClick		SquareClick		-----	
33	Mtrnm.Click		Mtrnm.Click		Mtrnm.Click		-----	
34	Mtrnm. Bell		Mtrnm. Bell		Mtrnm. Bell		-----	
35	Jazz Kick 2		Jazz Kick 2		Concert BD		-----	
C2 36	Jazz Kick 1		Jazz Kick 1		ConcertBD Mt		-----	
37	Side Stick		Side Stick		Side Stick		-----	
38	Standard SN1		Brush Swirl		Concert Snr		-----	
39	909 HandClap		Brush Slap1		Castanets		High-Q	
40	Elec Snare 3		Brush Swirl		Concert Snr		Slap	
41	Real Tom 6		Real Tom 6		Timpani		ScratchPush	[EXC7]
42	Close HiHat2	[EXC1]	Close HiHat2	[EXC1]	Timpani		ScratchPull	[EXC7]
43	Real Tom 6		Real Tom 6		Timpani		Sticks	
44	Pedal HiHat2	[EXC1]	Pedal HiHat2	[EXC1]	Timpani		SquareClick	
45	Real Tom 4		Real Tom 4		Timpani		Mtrnm.Click	
46	Open HiHat2	[EXC1]	Open HiHat2	[EXC1]	Timpani		Mtrnm. Bell	
47	Real Tom 4		Real Tom 4		Timpani		Gt.FretNoiz	
C3 48	Real Tom 1		Real Tom 1		Timpani		Gt.CutNoise	
49	Crash Cym.1		Crash Cym.1		Timpani		Gt.CutNoise	
50	Real Tom 1		Real Tom 1		Timpani		String Slap	
51	Ride Cymbal		Ride Cymbal		Timpani		Fl.KeyClick	
52	ChinaCymbal		ChinaCymbal		Timpani		Laughing	
53	Ride Bell		Ride Bell		Timpani		Screaming	
54	Tambourine		Tambourine		Tambourine		Punch	
55	Splash Cym.		Splash Cym.		Splash Cym.		Heart Beat	
56	Cowbell		Cowbell		Cowbell		Footsteps	
57	Crash Cym.2		Crash Cym.2		Con.Cymbal2		Footsteps	
58	Vibraslap		Vibraslap		Vibraslap		Applause	
59	Ride Cymbal		Ride Cymbal		Concert Cym.		Creaking	
C4 60	Bongo High		Bongo High		Bongo High		Door	
61	Bongo Lo		Bongo Lo		Bongo Lo		Scratch	
62	Mute H.Conga		Mute H.Conga		Mute H.Conga		Wind Chimes	
63	Conga Hi Opn		Conga Hi Opn		Conga Hi Opn		Car-Engine	
64	Conga Lo Opn		Conga Lo Opn		Conga Lo Opn		Car-Stop	
65	High Timbale		High Timbale		High Timbale		Car-Pass	
66	Low Timbale		Low Timbale		Low Timbale		Car-Crash	
67	Agogo		Agogo		Agogo		Siren	
68	Agogo		Agogo		Agogo		Train	
69	Cabasa		Cabasa		Cabasa		Jetplane	
70	Maracas		Maracas		Maracas		Helicopter	
71	ShrtWhistle	[EXC2]	ShrtWhistle	[EXC2]	ShrtWhistle	[EXC2]	Starship	
C5 72	LongWhistle	[EXC2]	LongWhistle	[EXC2]	LongWhistle	[EXC2]	Gun Shot	
73	Short Guiro	[EXC3]	Short Guiro	[EXC3]	Short Guiro	[EXC3]	Machine Gun	
74	Long Guiro	[EXC3]	Long Guiro	[EXC3]	Long Guiro	[EXC3]	Lasergun	
75	Claves		Claves		Claves		Explosion	
76	Woodblock		Woodblock		Woodblock		Dog	
77	Woodblock		Woodblock		Woodblock		HorseGallop	
78	Mute Cuica	[EXC4]	Mute Cuica	[EXC4]	Mute Cuica	[EXC4]	Bird	
79	Open Cuica	[EXC4]	Open Cuica	[EXC4]	Open Cuica	[EXC4]	Rain	
80	MuteTriangl	[EXC5]	MuteTriangl	[EXC5]	MuteTriangl	[EXC5]	Thunder	
81	OpenTriangl	[EXC5]	OpenTriangl	[EXC5]	OpenTriangl	[EXC5]	Wind	
82	Shaker		Shaker		Shaker		Seashore	
83	Jingle Bell		Jingle Bell		Jingle Bell		Stream	
C6 84	Bell Tree		Bell Tree		Bell Tree		Bubble	
85	Castanets		Castanets		Castanets		-----	
86	Mute Surdo	[EXC6]	Mute Surdo	[EXC6]	Mute Surdo	[EXC6]	-----	
87	Open Surdo	[EXC6]	Open Surdo	[EXC6]	Open Surdo	[EXC6]	-----	
88	-----		-----		Applause		-----	

Arpeggio Style List

Style	Motif	Beat Pattern	Accent Rate	Shuffle Rate
1/4	all	1/ 4	0–100%	50–90%
1/6	all	1/ 6	0–100%	50–90%
1/8	all	1/ 8	0–100%	50–90%
1/12	all	1/12	0–100%	50–90%
1/16	all	1/16 1–3	0–100%	50–90%
1/32	SINGLE UP, SINGLE DOWN, SINGLE UP&DOWN, SINGLE RANDOM, DUAL UP, DUAL DOWN, DUAL UP&DOWN, DUAL RANDOM, NOTE ORDER, GLISSANDO, BASS+UP 1–8, BASS+RND 1–3, TOP+UP 1–6	1/32 1–3	0–100%	50–90%
PORTAMENTO A	all	PORTA-A 01–11	0–100%	50–90%
PORTAMENTO B	all	PORTA-B 01–15	0–100%	50–90%
GLISSANDO	GLISSANDO	1/16 1–3, 1/32 1–3	0–100%	50–90%
SEQUENCE A	all	SEQ-A 1–7	0–100%	50–90%
SEQUENCE B	all	SEQ-B 1–5	0–100%	50–90%
SEQUENCE C	SINGLE UP, SINGLE DOWN, SINGLE UP&DOWN, SINGLE RANDOM, DUAL UP, DUAL DOWN, DUAL UP&DOWN, DUAL RANDOM, NOTE ORDER, GLISSANDO, BASS+UP 1–8, BASS+RND 1–3, TOP+UP 1–6	SEQ-C 1–2	0–100%	50–90%
SEQUENCE D	all	SEQ-D 1–8	0–100%	50–90%
ECHO	SINGLE UP, SINGLE DOWN, SINGLE UP&DOWN, SINGLE RANDOM, DUAL UP, DUAL DOWN, DUAL UP&DOWN, DUAL RANDOM, NOTE ORDER	ECHO 1–3	0–100%	50–90%
SYNTH BASS	BASS+UP 2	SEQ-A 1, SEQ-C 1	0–100%	50–90%
HEAVY SLAP	BASS+UP 5, TOP+UP 5	MUTE 02, 03	0–100%	50–90%
LIGHT SLAP	BASS+UP 5, TOP+UP 5	MUTE 02, 03	0–100%	50–90%
WALK BASS	SINGLE UP, SINGLE DOWN, SINGLE UP&DOWN, SINGLE RANDOM, NOTE ORDER, GLISSANDO	WALKBS, REFRAIN 1	0–100%	50–90%
RHYTHM GTR 1	SINGLE UP, SINGLE DOWN, SINGLE UP&DOWN, SINGLE RANDOM, DUAL UP, DUAL DOWN, DUAL UP&DOWN, DUAL RANDOM, NOTE ORDER, BASS+UP 1–8, BASS+RND 1–3, TOP+UP 1–6	MUTE 01, 04	0–100%	50–90%
RHYTHM GTR 2	CHORD	MUTE 07, 13, 14	0–100%	50–90%
RHYTHM GTR 3	CHORD	MUTE 08, 12, 15	0–100%	50–90%
RHYTHM GTR 4	CHORD	MUTE 09, 10, 11, 16	0–100%	50–90%
RHYTHM GTR 5	SINGLE UP, SINGLE DOWN	STRUM 1–6	0–100%	50–90%
3 FINGER GTR	BASS+UP+TOP	SEQ-A 7	0–100%	50–90%
STRUM GTR UP	SINGLE UP	STRUM 7–8	0–100%	50–90%
STRUM GTR DOWN	SINGLE DOWN	STRUM 7–8	0–100%	50–90%
STRUM GTR UP&DW	SINGLE UP&DOWN	STRUM 7–8	0–100%	50–90%
PIANO BACKING	CHORD	MUTE 12, REFRAIN 2	0–100%	50–90%
CLAVI CHORD	BASS+CHORD 4, BASS+CHORD 5	MUTE 05, 06	0–100%	50–90%
WALTZ	BASS+CHORD 2, BASS+UP 2, BASS+RND 2, TOP+UP 2	3/4, 1/ 6, 1/12	0–100%	50–90%
SWING WALTZ	BASS+CHORD 2, BASS+UP 2, BASS+RND 2, TOP+UP 2	SWING 3/4, 1/16 1–3	0–100%	50–90%
REGGAE	CHORD, BASS+CHORD 1	REGGAE 1–2	0–100%	50–90%
PERCUSSION	SINGLE UP, SINGLE DOWN, SINGLE UP&DOWN, SINGLE RANDOM, DUAL UP, DUAL DOWN, DUAL UP&DOWN, DUAL RANDOM, NOTE ORDER, BASS+UP 1–8, BASS+RND 1–3, TOP+UP 1–6	PERC 1–4	0–100%	50–90%
HARP	SINGLE UP, SINGLE DOWN, SINGLE UP&DOWN, GLISSANDO	HARP	0–100%	50–90%
SHAMISEN	TOP+UP 4–6	SEQ-A 2	0–100%	50–90%
BOUND BALL	SINGLE UP, SINGLE DOWN, SINGLE UP&DOWN, SINGLE RANDOM, DUAL UP, DUAL DOWN, DUAL UP&DOWN, DUAL RANDOM, NOTE ORDER, GLISSANDO	BOUND	0–100%	50–90%
RANDOM	SINGLE RANDOM, DUAL RANDOM, BASS+RND 1–3	1/ 4, 1/6, 1/8, 1/12, 1/16 1–3, 1/32 1–3, RANDOM	0–100%	50–90%
BOSSA NOVA	all	BOSSA NOVA	0–100%	50–90%
SALSA	all	SALSA 1–4	0–100%	50–90%
MAMBO	all	MAMBO 1–2	0–100%	50–90%
LATIN PERCUSSION	SINGLE UP, SINGLE DOWN, SINGLE UP&DOWN,	CLAVE, REV CLA, GUIRO, AGOGO	0–100%	50–90%
	SINGLE RANDOM, DUAL UP, DUAL DOWN, DUAL UP&DOWN,			
	DUAL RANDOM, NOTE ORDER, GLISSANDO			
SAMBA	all	SAMBA	0–100%	50–90%
TANGO	all	TANGO 1–4	0–100%	50–90%
HOUSE	all	HOUSE 1–2	0–100%	50–90%
LIMITLESS	all	all	0–100%	50–90%

all: there is no restriction on the value which can be set

Rhythm Pattern List

No.	Rhythm Pattern	Recommended Tempo
000	OFF	---
001	ShufflePop 1	92
002	ShuffleR&B 1	96
003	R&B 1	108
004	Funk 1	124
005	8Beat Pop 1	92
006	16Beat Pop 1	86
007	8Beat Rock 1	106
008	16BeatRock 1	124
009	Acid Jazz	96
010	Hip Hop	98
011	Swing 1	160
012	Fast Swing 1	110
013	Blues 1	120
014	Blues 2	152
015	Latin Pop	110
016	Salsa 1	92
017	8Bt Fusion 1	112
018	16BtFusion 1	100
019	Ballad 1	83
020	Ballad 2	84
021	8Beat Pop 2	96
022	8Beat Pop 3	108
023	8Beat Pop 4	75
024	8Bt Fusion 2	112
025	16Beat Pop 2	110
026	16Beat Pop 3	75
027	16BtFusion 2	124
028	16BtFusion 3	124
029	PowerFusion1	128
030	PowerFusion2	120
031	West Coast	124
032	Latin Fusion	125
033	R&B 2	85
034	R&B 3	112
035	Funk 2	86
036	Funk 3	120
037	ShufflePop 2	184
038	ShuffleR&B 2	110
039	ShuffleR&B 3	100
040	5/4 Fusion	160
041	6/4 Fusion	160
042	7/4 Fusion	160
043	Motown	130
044	Gospel 1	84
045	Gospel 2	50
046	Blue Grass	150
047	Swing 2	111
048	Swing 3	130
049	Combo 1	140
050	Combo 2	160
051	Fast Swing 2	114
052	Jazz Brush 1	55
053	Jazz Brush 2	60
054	Free Jazz	128
055	Jazz Waltz	106
056	5/4 Swing	140
057	6/8 Swing	120
058	7/4 Swing	140
059	Bossa Nova 1	120
060	Bossa Nova 2	130
061	Bossa Nova 3	160
062	Fast Bossa	110
063	Pop Bossa	120
064	Salsa 2	98
065	Samba 1	105
066	Samba 2	124
067	Mambo 1	94
068	Mambo 2	92
069	Rhumba	120
070	Merengue	106
071	Rockaballad1	120
072	Rockaballad2	89
073	Piano Ballad	60
074	3/4 Brush	90
075	8Beat Rock 2	130
076	8Beat Rock 3	136
077	16BeatRock 2	140
078	Progressive	80
079	5/8 Progress	80
080	6/8 Progress	80
081	7/8 Progress	80
082	Techno	140
083	Dance	125
084	House	130
085	Jungle	160

Setup List

→ Owner's Manual **"Selecting Stored Settings ([SETUP])"** (p. 54).

No.001–020 "RHY: Setup": These Setups let you enjoy performing with a session-like feel while playing a Rhythm. Be sure to check it out. For more on Rhythms, refer to the **"Playing Rhythm ([RHYTHM])"** (p. 51).

No.	Setup Name
001	RHY: Shuffle
002	RHY: R&B Sfl
003	RHY: R&B
004	RHY: Funk
005	RHY: Pop 1
006	RHY: Pop 2
007	RHY: Rock 1
008	RHY: Rock 2
009	RHY: Groove
010	RHY: Hip Hop
011	RHY: Dance
012	RHY: House
013	RHY: Swing 1
014	RHY: Swing 2
015	RHY: Blues 1
016	RHY: Blues 2
017	RHY:Slo Grv1
018	RHY:Slo Grv2
019	RHY: Phaser
020	RHY: Salsa
021	Stereo Clav
022	Piano&Strngs
023	Rock Piano
024	Piano&Choir
025	Piano&Pad
026	Christmas
027	PhsClav/Bs
028	Quan-Clav
029	Vibes&Glockn
030	EP/Arp Clav
031	Tone Wheel
032	MIDI Rhodes
033	E.Grand
034	EP Pad
035	Rocker Organ
036	Soap Opera
037	Rock Split
038	Synth Organ
039	Bass/Rhodes
040	Cathedral
041	Marcato Str
042	Chamber Wind
043	Brass String
044	Slow Strings
045	Octave Str
046	Syn Strings
047	Harpsi&Str
048	Deep Strings
049	Organ Str
050	Church
051	Warm OrgPad
052	Slicing Svox
053	Slicing Pad
054	Cultivate
055	Bell Pad
056	Heirbone RD
057	RandomBellPd
058	Glassy Pad
059	Air Pad
060	SpaceVox Pad
061	Nylon&Str
062	Jazz Combo
063	SearingLd/Bs
064	Gtr Lead/Org
065	SynthLead/Bs
066	West Coast
067	Harpsi&Gtr
068	Nylon Rhodes
069	Yang Qin
070	3 Finger
071	Orch Brass
072	Flute/Harp
073	Brs&Str Orch
074	Flute/String
075	SopSax/Str
076	Soft SynBrs
077	Big Band
078	Fr.Horn Sect
079	Synth Brass
080	PsychoRhodes
081	Scat Vox
082	Air Piano
083	Jazz Scat
084	Glass Voices
085	Poly SynSaw
086	Humaniser
087	Synth Stack
088	E.Piano/Scat
089	Tubular Vox
090	Techno Combo
091	Warm Pno Pad
092	Groove EP
093	Pno-Stage EP
094	12Str Beauty
095	Organ Layer
096	Killer Brass
097	2Phazed Pno
098	Talking Stab
099	Sop-Vibes/EP
100	Glass Rhodes

Shortcut List

You can easily change settings for the following functions using a number of related buttons.

* *"[A] + [B]" indicates that you are to hold down [A] and press [B].*

What to do	Operation	Page
Switching Arpeggio Hold On and Off	[ARPEGGIO] + [TRANSPOSE]	p. 87
Selecting Parts to Play Arpeggios	[ARPEGGIO] + PART SWITCH	p. 84
Changing Transpose setting	[TRANSPOSE] + Key	p. 46
Changing the Keyboard's Split Point	[SPLIT] + Key	p. 44
Changing the MFX Source	MULTI EFFECTS[ON/OFF] + PART SWITCH	p. 77
Setting the Reverb/Chorus Amount for each Part	PART SWITCH + REVERB or CHORUS knob	p. 80

You can easily call up Edit screens for related parameters for the following functions by holding down [EDIT] while pressing buttons, turning knobs, or operating other controllers.

* *"aaa : bbb" indicates the bbb parameter in Edit screen aaa.*

What to do	Operation	Page	Page
Switching the Pedal's Polarity	[EDIT] + Damper	System: Damper Polarity	p. 71
Assigning Functions to Pedals	[EDIT] + FC1/2	Control/EQ: FC1/FC2	p. 73
Changing the Equalizer Frequency Settings	[EDIT] + EQUALIZER Knob	Control/EQ: EQ Low/Mid/High Freq	p. 74
	[EDIT] + EQUALIZER [ON/OFF]		
Switching the Chorus and Delay	[EDIT] + CHORUS Knob	MFX/Reverb/Chorus: Chorus/Delay	p. 78
Selecting the Reverb Type	[EDIT] + REVERB Knob	MFX/Reverb/Chorus: Reverb Type	p. 78
Changing the [CONTROL] knob parameter	[EDIT] + [CONTROL] Knob	MFX/Reverb/Chorus: MFX Control	p. 77
Changing the Multi-effects Type	[EDIT] + MULTI EFFECTS [ON/OFF]	MFX/Reverb/Chorus: MFX Type	p. 77
Changing the Rhythm Patterns	[EDIT] + [RHYTHM]	Rhythm Pattern: Pattern	p. 82
Changing the Arpeggio Style	[EDIT] + [ARPEGGIO]	Arpeggio: Style	p. 84
Setting the Transposition for Local Part	[EDIT] + [TRANSPOSE]	Local Part Param: Key Transpose	p. 88
Setting the Key Range for Local Part	[EDIT] + [SPLIT]	Local Part Param: Key Range	p. 88
Turning the Controllers are used to control the Local Parts On and Off	[EDIT] + BENDER	Local Part: Bender Sw	p. 89
	[EDIT] + Modulation	Local Part: Modulation Sw	

MIDI Implementation

Model: RD-700 (Digital Piano)
Date: Mar. 1, 2001
Version: 1.00

1. Receive data

■Channel Voice Messages

●Note off

Status	2nd byte	3rd byte
8nH	kkH	vvH
9nH	kkH	00H
n = MIDI channel number:		0H - FH (ch.1 - 16)
kk = note number:		00H - 7FH (0 - 127)
vv = note off velocity:		00H - 7FH (0 - 127)

* Some instruments are not received in Rhythm set.
* The velocity values of Note Off messages are ignored.

●Note on

Status	2nd byte	3rd byte
9nH	kkH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
kk = note number:		00H - 7FH (0 - 127)
vv = note on velocity:		01H - 7FH (1 - 127)

●Control Change

* If the corresponding Controller number is selected for the Control Source parameter (EDIT:CONTROL/EQ:Src), the corresponding effect will occur.

❍Bank Select (Controller number 0, 32)

Status	2nd byte	3rd byte
BnH	00H	mmH
BnH	20H	llH
n = MIDI channel number:		0H - FH (ch.1 - 16)
mm, ll = Bank number:		00 00H - 7F 7FH (bank.1 - bank.16384)

* Not received when the Rx Bank Select (EDIT:Internal Part Parameter:Rx Bank Select) is OFF.
* The SETUP, Rhythms, and Tones corresponding to each Bank Select are as follows.
* The SRX series corresponding to each Bank Select are to see the SRX series owner's manual.

BANK SELECT MSB	BANK SELECT LSB	PROGRAM NUMBER	GROUP	NUMBER
000		001 - 128	GM Patch	
:		:	:	
032		001 - 128	GM Patch	
085	000	001 - 100	SETUP	001 - 100
	064	001	One Touch Piano SETUP	001
086	064	001 - 004	Rhythm Set	200 - 203
087	064	001 - 019	Tone (PIANO)	001 - 019
	065	001 - 020	Tone (E.PIANO)	020 - 039
	066	001 - 020	Tone (CALV/MALLET)	040 - 059
	067	001 - 030	Tone (ORGAN)	060 - 089
	068	001 - 020	Tone (STRINGS)	090 - 109
	069	001 - 020	Tone (PAD)	110 - 129
	070	001 - 030	Tone (GTR/BASS)	130 - 159
	071	001 - 020	Tone (BRASS/WINDS)	160 - 179
	072	001 - 020	Tone (VOICE/SYNTH)	180 - 199
	:	:	:	
092	000 -	001 -	SRX Rhythm	001 -
	:	:	:	
093	000 -	001 -	SRX Patch	001 -
	:	:	:	
120		001 - 057	GM Rhythm	204 - 212
121	000 -	001 - 128	GM Patch	213 - 468

❍Modulation (Controller number 1)

Status	2nd byte	3rd byte
BnH	01H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Modulation depth:		00H - 7FH (0 - 127)

* Not received when the Rx Modulation (EDIT:Internal Part Parameter:Rx Modulation) is OFF.

❍Portamento Time (Controller number 5)

Status	2nd byte	3rd byte
BnH	05H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Portamento Time:		00H - 7FH (0 - 127)

* The Portament Time parameter (EDIT:Tone Parameter:Portament Time) will change.

❍Data Entry (Controller number 6, 38)

Status	2nd byte	3rd byte
BnH	06H	mmH
BnH	26H	llH
n = MIDI channel number: 0H - FH (ch.1 - 16)		
mm, ll = the value of the parameter specified by RPN/NRPN		
mm = MSB, ll = LSB		

❍Volume (Controller number 7)

Status	2nd byte	3rd byte
BnH	07H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Volume:		00H - 7FH (0 - 127)

* Not received when the Rx Volume (EDIT:Internal Part Parameter:Rx Volume) is OFF.
* The Part Level parameter will change.

❍Panpot (Controller number 10)

Status	2nd byte	3rd byte
BnH	0AH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Panpot:		00H - 40H - 7FH (Left - Center - Right),

* Not received when the Rx Pan (EDIT:Internal Part Parameter:Rx Pan) is OFF.
* The pan parameter (EDIT:Internal Part Parameter:Pan) will change.

❍Expression (Controller number 11)

Status	2nd byte	3rd byte
BnH	0BH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Expression:		00H - 7FH (0 - 127)

❍ General Purpose Controller 1 (Controller number 16)

Status	2nd byte	3rd byte
BnH	10H	vvH
n = MIDI channel number:0H - FH (ch.1 - 16)		
vv = Control value: 00H - 7FH (0 - 127)		

* Initial function is MFX Control.

❍Hold 1 (Controller number 64)

Status	2nd byte	3rd byte
BnH	40H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Control value:		00H - 7FH (0 - 127) 0-63 = OFF, 64-127 = ON

* Not received when the Rx Hold-1 (EDIT:Internal Part Parameter:Rx Hold-1) is OFF.

❍Portamento (Controller number 65)

Status	2nd byte	3rd byte
BnH	41H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Control value:		00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON

* The Portamento Sw parameter (EDIT:Tone Edit:Portament Sw) will change.

❍Sostenuto (Controller number 66)

Status	2nd byte	3rd byte
BnH	42H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Control value:		00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON

❍Soft (Controller number 67)

Status	2nd byte	3rd byte
BnH	43H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Control value:		00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON

❍Resonance (Controller number 71)

Status	2nd byte	3rd byte
BnH	47H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv= Resonance value (relative change):		00H - 7FH (-64 - 0 - +63),

* The Resonanse parameter (EDIT:Tone Edit:Resonance) will change.

❍Release Time (Controller number 72)

Status	2nd byte	3rd byte
BnH	48H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Release Time value (relative change):		00H - 7FH (-64 - 0 - +63),

* The Release Time parameter (EDIT:Tone Edit:Release Time) will change.

❍Attack time (Controller number 73)

Status	2nd byte	3rd byte
BnH	49H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Attack time value (relative change):		00H - 7FH (-64 - 0 - +63),

* The Attack Time parameter (EDIT:Tone Edit:Attack Time) will change.

❍Cutoff (Controller number 74)

Status	2nd byte	3rd byte
BnH	4AH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Cutoff value (relative change):		00H - 7FH (-64 - 0 - +63)

* The Cutoff parameter (EDIT:Tone Edit:Cutoff) will change.

❍Decay Time (Controller number 75)

Status	2nd byte	3rd byte
BnH	4BH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Decay Time value (relative change):		00H - 7FH (-64 - 0 - +63)

* The decay time will change in GM mode.

❍Vibrato Rate (Controller number 76)

Status	2nd byte	3rd byte
BnH	4CH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Vibrato Rate value (relative change):		00H - 7FH (-64 - 0 - +63)

* The vibrato rate will change in GM mode.

❍Vibrato Depth (Controller number 77)

Status	2nd byte	3rd byte
BnH	4DH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Vibrato Depth Value (relative change):		00H - 7FH (-64 - 0 - +63)

* The vibrato depth will change in GM mode.

❍Vibrato Delay (Controller number 78)

Status	2nd byte	3rd byte
BnH	4EH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Vibrato Delay value (relative change):		00H - 7FH (-64 - 0 - +63)

* The vibrato delay will change in GM mode.

❍Portamento Control (Controller number 84)

Status	2nd byte	3rd byte
BnH	54H	kkH
n = MIDI channel number:		0H - FH (ch.1 - 16)
kk = source note number:		00H - 7FH (0 - 127)

* A Note-on received immediately after a Portamento Control message will change continuously in pitch, starting from the pitch of the Source Note Number.
* If a voice is already sounding for a note number identical to the Source Note Number, this voice will continue sounding (i.e., legato) and will, when the next Note-on is received, smoothly change to the pitch of that Note-on.
* The rate of the pitch change caused by Portamento Control is determined by the Portamento Time value.

❍Effect 1 (Reverb Send Level) (Controller number 91)

Status	2nd byte	3rd byte
BnH	5BH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Reverb Send Level:		00H - 7FH (0 - 127)

* The Reverb Amount parameter (EDIT:Tone Edit:Reverb Amount) will change.

❍Effect 3 (Chorus Send Level) (Controller number 93)

Status	2nd byte	3rd byte
BnH	5DH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Chorus Send Level:		00H - 7FH (0 - 127)

* The Chorus Amount parameter (EDIT:Tone Edit:Chorus Amount) will change.

❍RPN MSB/LSB (Controller number 100, 101)

Status	2nd byte	3rd byte
BnH	65H	mmH
BnH	64H	llH

n = MIDI channel number: 0H - FH (ch.1 - 16)
mm = upper byte (MSB) of parameter number specified by RPN
ll = lower byte (LSB) of parameter number specified by RPN
<<< RPN >>>
Control Changes include RPN (Registered Parameter Numbers), which are extended.
When using RPNs, first RPN (Controller numbers 100 and 101; they can be sent in any order) should be sent in order to select the parameter, then
Data Entry (Controller numbers 6 and 38) should be sent to set the value. Once RPN messages are received, Data Entry messages that is received at the same MIDI channel after that are recognized as changing toward the value of the RPN messages. In order not to make any mistakes, transmitting RPN Null is recommended after setting parameters you need.

This device receives the following RPNs.

RPN MSB, LSB	Data entry MSB, LSB	Notes
00H, 00H	mmH, llH	Pitch Bend Sensitivity mm: 00H - 18H (0 - 24 semitones) ll: ignored (processed as 00H) Up to 2 octave can be specified in semitone steps. * The Bend Range parameter (EDIT:Tone Edit:Bend Range) will change.
00H, 01H	mmH, llH	Channel Fine Tuning mm, ll: 20 00H - 40 00H - 60 00H (-4096 x 100 / 8192 - 0 - +4096 x 100 / 8192 cent) * The Fine Tune parameter (EDIT:Tone Edit:Fine Tune) will change.
00H, 02H	mmH, llH	Channel Coarse Tuning mm: 10H - 40H - 70H (-48 - 0 - +48 semitones) ll: ignored (processed as 00H) * The Coarse Tune parameter (EDIT:Tone Edit:Coarse Tune) will change.
00H, 05H	mmH, llH	Modulation Depth Range mm, ll: 00 00H - 06 00H (0 - 16384 * 600 / 16384 cent) * The modulation depth range will change in GM mode.
7FH, 7FH	---, ---	RPN null RPN and NRPN will be set as "unspecified." Once this setting has been made, subsequent Parameter values that were previously set will not change. mm, ll: ignored

●Program Change

Status	2nd byte	
CnH	ppH	
n = MIDI channel number:		0H - FH (ch.1 - 16)
pp = Program number:		00H - 7FH (prog.1 - prog.128)

* Not received when the Rx Program Change parameter (EDIT:Internal Part Parameter:Rx Program Chanage) is OFF.

●Pitch Bend Change

Status	2nd byte	3rd byte
EnH	llH	mmH
n = MIDI channel number:		0H - FH (ch.1 - 16)
mm, ll = Pitch Bend value:		00 00H - 40 00H - 7F 7FH (-8192 - 0 - +8191)

* Not received when the Rx Bender parameter (EDIT:Internal Part Parameter:Rx Bender) is OFF.

■Channel Mode Messages

●All Sounds Off (Controller number 120)

Status	2nd byte	3rd byte
BnH	78H	00H

n = MIDI channel number: 0H - FH (ch.1 - 16)

* When this message is received, all notes currently sounding on the corresponding channel will be turned off.

●Reset All Controllers (Controller number 121)

Status	2nd byte	3rd byte
BnH	79H	00H

n = MIDI channel number: 0H - FH (ch.1 - 16)

* When this message is received, the following controllers will be set to their reset values.

Controller	Reset value
Pitch Bend Change	±0 (center)
Channel Pressure	0 (off)
Modulation	0 (off)
Breath Type	0 (min)
Expression	127 (max)
Hold 1	0 (off)
Sostenuto	0 (off)
Soft	0 (off)
Hold 2	0 (off)
RPN	unset; previously set data will not change
NRPN	unset; previously set data will not change

●All Notes Off (Controller number 123)

Status	2nd byte	3rd byte
BnH	7BH	00H

n = MIDI channel number: 0H - FH (ch.1 - 16)

* When All Notes Off is received, all notes on the corresponding channel will be turned off. However, if Hold 1 or Sostenuto is ON, the sound will be continued until these are turned off.

●OMNI OFF (Controller number 124)

Status	2nd byte	3rd byte
BnH	7CH	00H

n = MIDI channel number: 0H - FH (ch.1 - 16)

* The same processing will be carried out as when All Notes Off is received.

●OMNI ON (Controller number 125)

Status	2nd byte	3rd byte
BnH	7DH	00H

n = MIDI channel number: 0H - FH (ch.1 - 16)

* The same processing will be carried out as when All Notes Off is received. OMNI ON will not be turned on.

●MONO (Controller number 126)

Status	2nd byte	3rd byte
BnH	7EH	mmH
n = MIDI channel number:		0H - FH (ch.1 - 16)
mm = mono number:		00H - 10H (0 - 16)

* The same processing will be carried out as when All Notes Off is received.
* The Mono/Poly parameter (EDIT:Tone Edit:Mono/Poly) will change.

●POLY (Controller number 127)

Status	2nd byte	3rd byte
BnH	7FH	00H

n = MIDI channel number: 0H - FH (ch.1 - 16)

* The same processing will be carried out as when All Notes Off is received.
* The Mono/Poly parameter (EDIT:Tone Edit:Mono/Poly) will change.

■System Realtime Message

●Timing Clock

Status
F8H

* This message will be received if the Clock Source parameter (EDIT:SYSTEM:Clock Source) is MIDI.

●Active Sensing

Status
FEH

* When Active Sensing is received, the unit will begin monitoring the intervals of all further messages. While monitoring, if the interval between messages exceeds 420 ms, the same processing will be carried out as when All Sounds Off, All Notes Off and Reset All Controllers are received, and message interval monitoring will be halted.

■System Exclusive Message

Status	Data byte	Status
F0H	iiH, ddH, ...,eeH	F7H
F0H:	System Exclusive Message status	

ii = ID number: an ID number (manufacturer ID) to indicate the manufacturer whose Exclusive message this is. Roland's manufacturer ID is 41H.
ID numbers 7EH and 7FH are extensions of the MIDI standard; Universal Non-realtime Messages (7EH) and Universal Realtime Messages (7FH).
dd,...,ee = data: 00H - 7FH (0 - 127)
F7H: EOX (End Of Exclusive)

Of the System Exclusive messages received by this device, the Universal Non-realtime messages and the Universal Realtime messages and the Data Request (RQ1) messages and the Data Set (DT1) messages will be set automatically.

●Universal Non-realtime System Exclusive Messages

❍Identity Request Message

Status	Data byte	Status
F0H	7EH, dev, 06H, 01H	F7H

Byte	Explanation
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
dev	Device ID (dev: 00H - 1FH (1 - 32), the initial value is 10H (17).)
06H	Sub ID#1 (General Information)
01H	Sub ID#2 (Identity Request)
F7H	EOX (End Of Exclusive)

* When this message is received, Identity Reply message (p. 153) will be transmitted.

❍GM1 System On

Status	Data byte	Status
F0H	7EH, 7FH, 09H, 01H	F7H

Byte	Explanation
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
7FH	Device ID (Broadcast)
09H	Sub ID#1 (General MIDI Message)
01H	Sub ID#2 (General MIDI 1 On)
F7H	EOX (End Of Exclusive)

* When this messages are received, this instrument will turn to the GM mode.
* Not received when the Rx GM1 System On parameter (EDIT:System:Rx GM1 System ON) is OFF.

❍GM2 System On

Status	Data byte	Status
F0H	7EH 7FH 09H 03H	F7H

Byte	Explanation
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
7FH	Device ID (Broadcast)
09H	Sub ID#1 (General MIDI Message)
03H	Sub ID#2 (General MIDI 2 On)
F7H	EOX (End Of Exclusive)

* When this messages is received, this instrument will turn to the GM mode.

* Not received when the Rx GM2 System On parameter (EDIT:System:Rx GM2 System ON) is OFF.

❍GM System Off

Status	Data byte	Status
F0H	7EH, 7F, 09H, 02H	F7H

Byte	Explanation
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
7FH	Device ID (Broadcast)
09H	Sub ID#1 (General MIDI Message)
02H	Sub ID#2 (General MIDI Off)
F7H	EOX (End Of Exclusive)

* When this messages is received, this instrument will return to Normal mode.

●Universal Realtime System Exclusive Messages

❍Master Volume

Status	Data byte	Status
F0H	7FH, 7FH, 04H, 01H, llH, mmH	F7H

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
7FH	Device ID (Broadcast)
04H	Sub ID#1 (Device Control messages)
01H	Sub ID#2 (Master Volume)
llH	Master Volume lower byte
mmH	Master Volume upper byte
F7H	EOX (End Of Exclusive)

* The lower byte (llH) of Master Volume will be handled as 00H.

* The Master Volume parameter (EDIT:System:Master Volume) will change.

❍Master Fine Tuning

Status	Data byte	Status
F0H	7FH, 7FH, 04H, 03H, llH, mmH	F7H

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
7FH	Device ID (Broadcast)
04H	Sub ID#1 (Device Control)
03H	Sub ID#2 (Master Fine Tuning)
llH	Master Fine Tuning LSB
mmH	Master Fine Tuning MSB
F7H	EOX (End Of Exclusive)

mm, ll: 00 00H - 40 00H - 7F 7FH (-100 - 0 - +99.9 [cents])

❍Master Coarse Tuning

Status	Data byte	Status
F0H	7FH, 7FH, 04H, 04H, llH, mmH	F7H

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
7FH	Device ID (Broadcast)
04H	Sub ID#1 (Device Control)
04H	Sub ID#2 (Master Coarse Tuning)
llH	Master Coarse Tuning LSB
mmH	Master Coarse Tuning MSB
F7H	EOX (End Of Exclusive)
llH:	ignored (processed as 00H)
mmH:	28H - 40H - 58H (-24 - 0 - +24 [semitones])

●Global Parameter Control

* Not Received when the GM Mode is OFF.

❍Reverb Parameters

Status	Data byte	Status
F0H	7FH, 7FH, 04H, 05H, 01H, 01H, 01H, 01H, 01H, ppH, vvH	F7H

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
7FH	Device ID (Broadcast)
04H	Sub ID#1 (Device Control)
05H	Sub ID#2 (Global Parameter Control)
01H	Slot path length
01H	Parameter ID width
01H	Value width
01H	Slot path MSB
01H	Slot path LSB (Effect 0101: Reverb)
ppH	Parameter to be controlled.
vvH	Value for the parameter. pp=0 Reverb Type vv = 00H Small Room vv = 01H Medium Room vv = 02H Large Room vv = 03H Medium Hall vv = 04H Large Hall vv = 08H Plate pp=1 Reverb Time vv = 00H - 7FH 0 - 127
F7H	EOX (End Of Exclusive)

❍Chorus Parameters

Status	Data byte	Status
F0H	7FH, 7FH, 04H, 05H, 01H, 01H, 01H, 01H, 02H, ppH, vvH	F7H

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
7FH	Device ID (Broadcast)
04H	Sub ID#1 (Device Control)
05H	Sub ID#2 (Global Parameter Control)
01H	Slot path length
01H	Parameter width
01H	Value width
01H	Slot path MSB
02H	Slot path LSB (Effect 0102: Chorus)
ppH	Parameter to be controlled.
vvH	Value for the parameter. pp=0 Chorus Type vv=0 Chorus1 vv=1 Chorus2 vv=2 Chorus3 vv=3 Chorus4 vv=4 FB Chorus vv=5 Flanger pp=1 Mod Rate vv= 00H - 7FH 0 - 127 pp=2 Mod Depth vv = 00H - 7FH 0 - 127

	pp=3 Feedback
	vv = 00H - 7FH 0 - 127
	pp=4 Send To Reverb
	vv = 00H - 7FH 0 - 127
F7H	EOX (End Of Exclusive)

❍Channel Pressure

Status	Data byte	Status
F0H	7FH, 7FH, 09H, 01H, 0nH, ppH, rrH	F7H

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
7FH	Device ID (Broadcast)
09H	Sub ID#1 (Controller Destination Setting)
01H	Sub ID#2 (Channel Pressure)
0nH	MIDI Channel (00 - 0F)
ppH	Controlled parameter
rrH	Controlled range
	pp=0 Pitch Control
	rr = 28H - 58H -24 - +24 [semitones]
	pp=1 Filter Cutoff Control
	rr = 00H - 7FH -9600 - +9450 [cents]
	pp=2 Amplitude Control
	rr = 00H - 7FH 0 - 200%
	pp=3 LFO Pitch Depth
	rr = 00H - 7FH 0 - 600 [cents]
	pp=4 LFO Filter Depth
	rr = 00H - 7FH 0 - 2400 [cents]
	pp=5 LFO Amplitude Depth
	rr = 00H - 7FH 0 - 100%
F7H	EOX (End Of Exclusive)

❍Controller

Status	Data byte	Status
F0H	7FH, 7FH, 09H, 03H, 0nH, ccH, ppH, rrH	F7H

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
7FH	Device ID (Broadcast)
09H	Sub ID#1 (Controller Destination Setting)
03H	Sub ID#2 (Control Change)
0nH	MIDI Channel (00 - 0F)
ccH	Controller number (01 - 1F, 40 - 5F)
ppH	Controlled parameter
rrH	Controlled range
	pp=0 Pitch Control
	rr = 28H - 58H -24 - +24 [semitones]
	pp=1 Filter Cutoff Control
	rr = 00H - 7FH -9600 - +9450 [cents]
	pp=2 Amplitude Control
	rr = 00H - 7FH 0 - 200%
	pp=3 LFO Pitch Depth
	rr = 00H - 7FH 0 - 600 [cents]
	pp=4 LFO Filter Depth
	rr = 00H - 7FH 0 - 2400 [cents]
	pp=5 LFO Amplitude Depth
	rr = 00H - 7FH 0 - 100%
F7H	EOX (End Of Exclusive)

❍Scale/Octave Tuning Adjust

Status	Data byte	Status
F0H	7EH, 7FH, 08H, 08H, ffH, ggH, hhH, ssH...	F7H

Byte	Explanation
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
7FH	Device ID (Broadcast)
08H	Sub ID#1 (MIDI Tuning Standard)
08H	Sub ID#2 (scale/octave tuning 1-byte form)
ffH	Channel/Option byte 1
	bits 0 to 1 = channel 15 to 16
	bit 2 to 6 = Undefined
ggH	Channel byte 2
	bits 0 to 6 = channel 8 to 14
hhH	Channel byte 3
	bits 0 to 6 = channel 1 to 7
ssH	12 byte tuning offset of 12 semitones from C to B
	00H = -64 [cents]
	40H = 0 [cents] (equal temperament)
	7FH = +63 [cents]
F7H	EOX (End Of Exclusive)

❍Key-based Instrument Controllers

Status	Data byte	Status
F0H	7FH, 7FH, 0AH, 01H, 0nH, kkH, nnH, vvH	F7H

Byte	Explanation	
F0H	Exclusive status	
7FH	ID number (universal realtime message)	
7FH	Device ID (Broadcast)	
0AH	Sub ID#1 (Key-Based Instrument Control)	
01H	Sub ID#2 (Controller)	
0nH	MIDI Channel (00 - 0F)	
kkH	Key Number	
nnH	Control Number	
vvH	Value	
	nn=07H Level	
	vv = 00H - 7FH	0 - 200% (Relative)
	nn=0AH	Pan
	vv = 00H - 7FH	Left - Right (Absolute)
	nn=5BH	Reverb Send
	vv = 00H - 7FH	0 - 127 (Absolute)
	nn=5D	Chorus Send
	vv = 00H - 7FH	0 - 127 (Absolute)
:	:	
F7	EOX (End Of Exclusive)	

* This parameter affects drum instruments only.

●Data Transmission

This instrument can use exclusive messages to exchange many varieties of internal settings with other devices.
The model ID of the exclusive messages used by this instrument is 00H 43H.

❍Data Request 1RQ1 (11H)

This message requests the other device to transmit data. The address and size indicate the type and amount of data that is requested.
When a Data Request message is received, if the device is in a state in which it is able to transmit data, and if the address and size are appropriate, the requested data is transmitted as a Data Set 1 (DT1) message. If the conditions are not met, nothing is transmitted.

Status	data byte	status
F0H	41H, dev, 00H, 43H, 11H, aaH, bbH, ccH, ddH, ssH, ttH, uuH, vvH, sum	F7H

Byte	Remarks
F0H	Exclusive status
41H	ID number (Roland)
dev	devdevice ID (dev: 10H - 1FH, 7FH)
00H	model ID #1 (RD-700)
43H	model ID #2 (RD-700)
11H	command ID (RQ1)
aaH	address MSB
bbH	address
ccH	address
ddH	address LSB
ssH	size MSB
ttH	size
uuH	size
vvH	size LSB
sum	checksum
F7H	EOX (End Of Exclusive)

* The size of data that can be transmitted at one time is fixed for each type of data. And data requests must be made with a fixed starting address and size. Refer to the address and size given in "Parameter Address Map" (p. 153).
* For the checksum, refer to (p. 160).
* Not Received when the GM Mode is ON.

❍Data set 1DT1

This is the message that actually performs data transmission, and is used when you wish to transmit the data.

Status	Data byte	Status
F0H	41H, dev, 00H, 43H, 12H, aaH, bbH, ccH, ddH, eeH, ... ffH, sum	F7H

Byte	Explanation
F0H	Exclusive status
41H	ID number (Roland)
dev	Device ID (dev: 00H - 1FH, 7FH, Initial value is 10H)
00H	Model ID #1 (RD-700)
43H	Model ID #2 (RD-700)
12H	Command ID (DT1)
aaH	Address MSB: upper byte of the starting address of the data to be sent
bbH	Address: upper middle byte of the starting address of the data to be sent
ccH	Address: lower middle byte of the starting address of the data to be sent
ddH	Address LSB: lower byte of the starting address of the data to be sent.
eeH	Data: the actual data to be sent. Multiple bytes of data are transmitted in order starting from the address.
:	:
ffH	Data
sum	Checksum
F7H	EOX (End Of Exclusive)

* The amount of data that can be transmitted at one time depends on the type of data, and data will be transmitted from the specified starting address and size. Refer to the address and size given in "Parameter Address Map" (p. 153).
* Data larger than 256 bytes will be divided into packets of 256 bytes or less, and each packet will be sent at an interval of about 20 ms.
* Regarding the checksum, please refer to (p. 160)
* Not Received when the GM Mode is ON.

❍Data set 1DT1 (GM Mode)

Status	Data byte	Status
F0H	41H, dev, 42H, 12H, aaH, bbH, ccH, ddH, ... eeH, sum	F7H

Byte	Explanation
F0H	Exclusive status
41H	ID number (Roland)
dev	Device ID (dev: 10H)
42H	Model ID (GS)
12H	Command ID (DT1)
aaH	Address MSB: upper byte of the starting address of the transmitted data
bbH	Address: middle byte of the starting address of the transmitted data
ccH	Address LSB: lower byte of the starting address of the transmitted data
ddH	Data: the actual data to be transmitted. Multiple bytes of data are transmitted starting from the address.
:	:
eeH	Data
sum	Checksum
F7H	EOX (End Of Exclusive)

* The amount of data that can be transmitted at one time depends on the type of data, and data will be transmitted from the specified starting address and size. Refer to the address and size given in "Parameter Address Map" (p. 153).
* Data larger than 256 bytes will be divided into packets of 256 bytes or less, and each packet will be sent at an interval of about 20 ms.
* Regarding the checksum, please refer to (p. 160)
* Not Received when the GM Mode is OFF.

2. Data Transmission

■Channel Voice Messages

●Note off

Status	2nd byte	3rd byte
8nH	kkH	40H
n = MIDI channel number:		0H - FH (ch.1 - 16)
kk = note number:		00H - 7FH (0 - 127)

* Note off message is sent out with the velocity of 40H.

●Note on

Status	2nd byte	3rd byte
9nH	kkH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
kk = note number:		00H - 7FH (0 - 127)
vv = note on velocity:		01H - 7FH (1 - 127)

●Control Change

* By selecting a controller number that corresponds to the setting of parameters of controllers (Control Src, Foot Controller Assign), the RD-700 can transmit any control change message.
* These messages are not transmitted when MIDI Tx Parameter is OFF.

❍Bank Select (Controller number 0, 32)

Status	2nd byte	3rd byte
BnH	00H	mmH
BnH	20H	llH
n = MIDI channel number:		0H - FH (ch.1 - 16)
mm, ll = Bank number:		00 00H - 7F 7FH (bank.1 - bank.16384)

* When Rec Mode is ON (EDIT:Utility:Rec Setting:Rec Mode), these messages are transmitted when Tone is selected.
* These messages are transmitted when Bank Select parameter is Set on MIDI Tx Part.
* The Bank Select Numbers corresponding to SRX series should be referred to the SRX series owner's manual.

❍Modulation (Controller number 1)

Status	2nd byte	3rd byte
BnH	01H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Modulation depth:		00H - 7FH (0 - 127)

* These messages are transmitted when Modulation lever is operated.

❍Portamento Time (Controller number 5)

Status	2nd byte	3rd byte
BnH	05H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Portamento Time:		00H - 7FH (0 - 127)

* These messages are transmitted when Portament Time is set in MIDI Tx Mode.

❍Data Entry (Controller number 6, 38)

Status	2nd byte	3rd byte
BnH	06H	mmH
BnH	26H	llH

n = MIDI channel number: 0H - FH (ch.1 - 16)
mm, ll = the value of the parameter specified by RPN/NRPN
mm = MSB, ll = LSB

* These messages are transmitted when Bend Range value is set in MIDI Tx Mode.

❍Volume (Controller number 7)

Status	2nd byte	3rd byte
BnH	07H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Volume:		00H - 7FH (0 - 127)

* These messages are transmitted when PART VOLUME Slider is operated.

❍Panpot (Controller number 10)

Status	2nd byte	3rd byte
BnH	0AH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Panpot:		00H - 40H - 7FH (Left - Center - Right)

* These messages are transmitted when Pan value is set in MIDI Tx Mode.

❍Hold 1 (Controller number 64)

Status	2nd byte	3rd byte
BnH	40H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Control value:		00H - 7FH (0 - 127) 0-63 = OFF, 64-127 = ON

* These messages are transmitted when Damper pedal is operated.

❍Portamento (Controller number 65)

Status	2nd byte	3rd byte
BnH	41H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Control value:		00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON

* These messages are transmitted when Portament Swicth is set in MIDI Tx Mode.

❍Sostenuto (Controller number 66)

Status	2nd byte	3rd byte
BnH	42H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Control value:		00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON

* These messages are transmitted when Foot Contolloer 2 is operated in One Touch Piano Mode.

❍Soft (Controller number 67)

Status	2nd byte	3rd byte
BnH	43H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Control value:		00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON

* These messages are transmitted when Foot Contolloer 1 is operated in One Touch Piano Mode.

❍Resonance (Controller number 71)

Status	2nd byte	3rd byte
BnH	47H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv= Resonance value (relative change):		00H - 7FH (-64 - 0 - +63)

* These messages are transmitted when Resonance value is set in MIDI Tx Mode.

❍Release Time (Controller number 72)

Status	2nd byte	3rd byte
BnH	48H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Release Time value (relative change):		00H - 7FH (-64 - 0 - +63)

* These messages are transmitted when Release Time is set in MIDI Tx Mode.

❍Attack time (Controller number 73)

Status	2nd byte	3rd byte
BnH	49H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Attack time value (relative change):		00H - 7FH (-64 - 0 - +63)

* These messages are transmitted when Attack Time is set in MIDI Tx Mode.

❍Cutoff (Controller number 74)

Status	2nd byte	3rd byte
BnH	4AH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Cutoff value (relative change):		00H - 7FH (-64 - 0 - +63)

* These messages are transmitted when Cutoff value is set in MIDI Tx Mode.

❍Effect 1 (Reverb Send Level) (Controller number 91)

Status	2nd byte	3rd byte
BnH	5BH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Reverb Send Level:		00H - 7FH (0 - 127)

* These messages are transmitted when Reverb value is set in MIDI Tx Mode.

❍Effect 3 (Chorus Send Level) (Controller number 93)

Status	2nd byte	3rd byte
BnH	5DH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Reverb Send Level:		00H - 7FH (0 - 127)

* These messages are transmitted when Chorus value is set in MIDI Tx Mode.

❍RPN MSB/LSB (Controller number 100, 101)

Status	2nd byte	3rd byte
BnH	65H	mmH
BnH	64H	llH

n = MIDI channel number: 0H - FH (ch.1 - 16)
mm = upper byte (MSB) of parameter number specified by RPN
ll = lower byte (LSB) of parameter number specified by RPN

<<< RPN >>>
Control Changes include RPN (Registered Parameter Numbers), which are extended.
When using RPNs, first RPN (Controller numbers 100 and 101; they can be sent in any order) should be sent in order to select the parameter, then
Data Entry (Controller numbers 6 and 38) should be sent to set the value. Once RPN messages are received, Data Entry messages that is received at the same MIDI channel after that are recognized as changing toward the value of the RPN messages. In order not to make any mistakes, transmitting RPN Null is recommended after setting parameters you need.

This device transmits the following RPNs.

RPN MSB, LSB	Data entry MSB, LSB	Notes
00H, 00H	mmH, llH	Pitch Bend Sensitivity mm: 00H - 18H (0 - 24 semitones) ll: ignored (processed as 00H)
00H, 01H	mmH, llH	Channel Fine Tuning mm, ll: 20 00H - 40 00H - 60 00H (-4096 x 100 / 8192 - 0 - +4096 x 100 / 8192 cent)
00H, 02H	mmH, llH	Channel Coarse Tuning mm: 10H - 40H - 70H (-48 - 0 - +48 semitones) ll: ignored (processed as 00H)
00H, 05H	mmH, llH	Modulation Depth Range mm, ll: 00 00H - 06 00H (0 - 16384 x 600 / 16384 cent)
7FH, 7FH	---, ---	RPN null RPN and NRPN will be set as "unspecified." Once this setting has been made, subsequent

●Program Change

Status	2nd byte	
CnH	ppH	
n = MIDI channel number:		0H - FH (ch.1 - 16)
pp = Program number:		00H - 7FH (prog.1 - prog.128)

* When Rec Mode is ON (EDIT:Utility:Rec Setting:Rec Mode), these messages are transmitted when Tone is selected.
* These messages are transmitted when Program Change parameter is Set on MIDI Tx Part.

●Pitch Bend Change

Status	2nd byte	3rd byte
EnH	llH	mmH
n = MIDI channel number:		0H - FH (ch.1 - 16)
mm, ll = Pitch Bend value:		00 00H - 40 00H - 7F 7FH (-8192 - 0 - +8191)

■System Realtime Messages

●Continue

Status
FBH

* This message is sent on START operation when START/STOP function is selected on Foot Controller.

●Stop

Status
FCH

* This message is sent on STOP operation when START/STOP function is selected on Foot Controller.

●Active Sensing

Status
FEH

* This message is transmitted at intervals of approximately 250 msec.

■System Exclusive Messages

Universal Non-realtime System Exclusive Message" and Data Set 1 (DT1) are the only System Exclusive messages transmitted by the RD-700.

●Universal Non-realtime System Exclusive Message

❍Identity Reply Message

Receiving Identity Request Message, the RD-700 send this message.

Status	Data byte	Status
F0H	7EH, dev, 06H, 02H, 41H, 43H, 01H, 00H, 00H, 00H, 01H, 00H, 00H	F7H

Byte	Explanation
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
dev	Device ID (use the same as the device ID of Roland)
06H	Sub ID#1 (General Information)
02H	Sub ID#2 (Identity Reply)
41H	ID number (Roland)
43H 01H	Device family code (RD-700)
00H 00H	Device family number code (RD-700)
00H 01H 00H 00H	Software revision level
F7H	EOX (End of Exclusive)

●Data Transmission

❍Data set 1DT1 (12H)

Status	Data byte	Status
F0H	41H, dev, 00H, 43H, 12H, aaH, bbH, ccH, ddH, eeH, ... ffH, sum	F7H

Byte	Explanation
F0H	Exclusive status
41H	ID number (Roland)
dev	Device ID (dev: 00H - 1FH, Initial value is 10H)
00H	Model ID #1 (RD-700)
43H	Model ID #2 (RD-700)
12H	Command ID (DT1)
aaH	Address MSB: upper byte of the starting address of the data to be sent
bbH	Address: upper middle byte of the starting address of the data to be sent
ccH	Address: lower middle byte of the starting address of the data to be sent
ddH	Address LSB: lower byte of the starting address of the data to be sent.
eeH	Data: the actual data to be sent. Multiple bytes of data are transmitted in order starting from the address.
:	:
ffH	Data
sum	Checksum
F7H	EOX (End Of Exclusive)

* The amount of data that can be transmitted at one time depends on the type of data, and data will be transmitted from the specified starting address and size. Refer to the address and size given in "Parameter Address Map" (p. 153).

* Data larger than 256 bytes will be divided into packets of 256 bytes or less, and each packet will be sent at an interval of about 20 ms.

3. Parameter Address Map

* Transmission of "#" marked address is divided to some packets. For example, ABH in hexadecimal notation will be divided to 0AH and 0BH, and is sent/received in this order.

1 RD-700 (Model ID = 00H 43H)

❍Indivisual Parameters

* These messages are transmitted when Bulk Dump Temporary funcion is executed.

* Please don't use a parameter or a address marked <Reserved>.

* The parameters for Setup are temporary. If you want to leave the parameters after the RD-700 is turned off , execute SETUP Write.

Start Address	Description
00 00 00 00	System
10 00 00 00	Setup (Temporary)

❍System

Offset Address	Description
00 00 00	System Common
00 10 00	System Onetouch Piano Tone Backup

❍Setup

Offset Address	Description
00 00	Setup Common
02 00	Setup Common MFX
04 00	Setup Common Chorus
06 00	Setup Common Reverb
10 00	Setup Local Part (Upper1)
11 00	Setup Local Part (Upper2)
12 00	Setup Local Part (Lower)
13 00	Setup MIDI Tx Part (Upper1)
14 00	Setup MIDI Tx Part (Upper2)
15 00	Setup MIDI Tx Part (Lower)
16 00	Setup MIDI Tx Part (Rhythm)
20 00	Setup Internal Part (Part: 01)
21 00	Setup Internal Part (Part: 02)
:	
2F 00	Setup Internal Part (Part: 16)
40 00	Setup Internal Part 1 Tone Backup
41 00	Setup Internal Part 2 Tone Backup
:	
4F 00	Setup Internal Part 16 Tone Backup
60 00	Setup Tone Wheel 1 Backup
61 00	Setup Tone Wheel 2 Backup
:	
69 00	Setup Tone Wheel 10 Backup

❍System Common

	Offset Address		Description	
#	00 00	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Master Tune	(24 – 2024) –100.0 – 100.0 [cent]
	00 04	0aaa aaaa	Master Level	(0 – 127)
	00 05	000a aaaa	Setup Control Channel	(0 – 16) 1 – 16, OFF
	00 06	0000 000a	Clock Source	(0 – 1) INT, MIDI
	00 07	0000 000a	Damper Polarity	(0 – 1) STANDARD, REVERSE
	00 08	0000 000a	FC1 Polarity	(0 – 1) STANDARD, REVERSE
	00 09	0000 000a	FC2 Polarity	(0 – 1) STANDARD, REVERSE
	00 0A	0000 000a	EQ Control	(0 – 1) SETUP, SYSTEM
	00 0B	0000 000a	Tone Remain	(0 – 1) OFF, ON
	00 0C	0000 000a	Receive GM1 System On	(0 – 1) OFF, ON
	00 0D	0000 000a	Receive GM2 System On	(0 – 1) OFF, ON
	00 0E	0000 000a	Receive GS Reset	(0 – 1) OFF, ON
	00 0F	0000 aaaa	One Touch Piano Tone	(0 – 15) 1 – 16
	00 10	0aaa aaaa	One Touch Piano Reverb Level	(0 – 127)
	00 11	0aaa aaaa	<Reserved>	
	00 00 00 12		Total Size	

❍System Onetouch Piano Tone Backup

Offset Address		Description	
00 00	00aa aaaa	Piano Stereo Width	(0 – 63)
00 01	0000 aaaa	Piano Nuance	(0 – 3) OFF, TYPE1, TYPE2, TYPE3
00 02	0000 0aaa	Piano Ambience	(0 – 5)
00 03	0000 000a	Piano EQ Switch	(0 – 1) BYPASS, ON
00 04	000a aaaa	Piano EQ Frequency	(0 – 16) 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000[Hz]
00 05	0aaa aaaa	Piano EQ Mid Gain	(0 – 30) –15.0 – +15.0[dB] (1step = 1dB)
00 06	0000 0aaa	Piano EQ Mid Q	(0 – 4) 0.5, 1.0, 2.0, 4.0, 8.0
00 00 00 07		Total Size	

❍Setup Common

Offset Address		Description	
00 00	0aaa aaaa	Setup Name 1	(32 – 127) 32 – 127 [ASCII]
00 01	0aaa aaaa	Setup Name 2	(32 – 127) 32 – 127 [ASCII]
00 02	0aaa aaaa	Setup Name 3	(32 – 127) 32 – 127 [ASCII]
00 03	0aaa aaaa	Setup Name 4	(32 – 127) 32 – 127 [ASCII]
00 04	0aaa aaaa	Setup Name 5	(32 – 127) 32 – 127 [ASCII]
00 05	0aaa aaaa	Setup Name 6	(32 – 127) 32 – 127 [ASCII]
00 06	0aaa aaaa	Setup Name 7	(32 – 127) 32 – 127 [ASCII]
00 07	0aaa aaaa	Setup Name 8	(32 – 127) 32 – 127 [ASCII]
00 08	0aaa aaaa	Setup Name 9	(32 – 127) 32 – 127 [ASCII]
00 09	0aaa aaaa	Setup Name 10	(32 – 127) 32 – 127 [ASCII]
00 0A	0aaa aaaa	Setup Name 11	(32 – 127) 32 – 127 [ASCII]
00 0B	0aaa aaaa	Setup Name 12	(32 – 127) 32 – 127 [ASCII]
00 0C	0aaa aaaa	Voice Reserve 1	(0 – 64) 0 – 63, FULL
00 0D	0aaa aaaa	Voice Reserve 2	(0 – 64) 0 – 63, FULL
00 0E	0aaa aaaa	Voice Reserve 3	(0 – 64) 0 – 63, FULL
00 0F	0aaa aaaa	Voice Reserve 4	(0 – 64) 0 – 63, FULL
00 10	0aaa aaaa	Voice Reserve 5	(0 – 64) 0 – 63, FULL
00 11	0aaa aaaa	Voice Reserve 6	(0 – 64) 0 – 63, FULL
00 12	0aaa aaaa	Voice Reserve 7	(0 – 64) 0 – 63, FULL
00 13	0aaa aaaa	Voice Reserve 8	(0 – 64) 0 – 63, FULL
00 14	0aaa aaaa	Voice Reserve 9	(0 – 64) 0 – 63, FULL
00 15	0aaa aaaa	Voice Reserve 10	(0 – 64) 0 – 63, FULL
00 16	0aaa aaaa	Voice Reserve 11	(0 – 64) 0 – 63, FULL
00 17	0aaa aaaa	Voice Reserve 12	(0 – 64) 0 – 63, FULL
00 18	0aaa aaaa	Voice Reserve 13	(0 – 64) 0 – 63, FULL
00 19	0aaa aaaa	Voice Reserve 14	(0 – 64) 0 – 63, FULL
00 1A	0aaa aaaa	Voice Reserve 15	(0 – 64) 0 – 63, FULL
00 1B	0aaa aaaa	Voice Reserve 16	(0 – 64) 0 – 63, FULL
# 00 1C	0000 aaaa 0000 bbbb	SETUP Tempo	(20 – 250)
# 00 1E	0000 000a 0000 bbbb 0000 cccc	Tone Category 1	(0 – 511)
# 00 21	0000 000a 0000 bbbb 0000 cccc	Tone Category 2	(0 – 511)
# 00 24	0000 000a 0000 bbbb 0000 cccc	Tone Category 3	(0 – 511)
# 00 27	0000 000a 0000 bbbb 0000 cccc	Tone Category 4	(0 – 511)
# 00 2A	0000 000a 0000 bbbb 0000 cccc	Tone Category 5	(0 – 511)
# 00 2D	0000 000a 0000 bbbb 0000 cccc	Tone Category 6	(0 – 511)
# 00 30	0000 000a 0000 bbbb 0000 cccc	Tone Category 7	(0 – 511)
# 00 33	0000 000a 0000 bbbb 0000 cccc	Tone Category 8	(0 – 511)
# 00 36	0000 000a 0000 bbbb 0000 cccc	Tone Category 9	(0 – 511)
# 00 39	0000 000a 0000 bbbb 0000 cccc	Tone Category 10	(0 – 511)
00 3C	0aaa aaaa	FC 1 Assign	(0 – 106) OFF, CC01 – CC31, CC33 – CC95, BEND, AFT, OCT–UP, OCT–DOWN, START/STOP, TAP–TEMPO, RHYTHM START/STOP, RHYTHM TYPE ARPEGGIO ON/OFF, MFX ON/OFF, CONTROL SRC,
00 3D	0aaa aaaa	FC 2 Assign	(0 – 106) OFF, CC01 – CC31, CC33 – CC95, BEND, AFT, OCT–UP, OCT–DOWN, START/STOP, TAP–TEMPO, RHYTHM START/STOP, RHYTHM TYPE ARPEGGIO ON/OFF, MFX ON/OFF, CONTROL SRC,
00 3E	0aaa aaaa	Control Source	(0 – 97) OFF, CC01 – CC31, CC33 – CC95, BEND, AFT
00 3F	0000 00aa	Control Assgin	(0 – 3) OFF, MFX CONTROL, TONE CONTROL, TEMPO CONTROL
00 40	0000 000a	EQ Switch	(0 – 1) BYPASS, ON
00 41	0000 000a	EQ Low Frequency	(0 – 1) 200, 400 [Hz]
00 42	0aaa aaaa	EQ Low Gain	(4 – 124) –12.0 – +12.0[dB] (1step = 0.2dB)
00 43	000a aaaa	EQ Mid Frequency	(0 – 16) 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000[Hz]
00 44	0aaa aaaa	EQ Mid Gain	(4 – 124) –12.0 – +12.0[dB] (1step = 0.2dB)
00 45	0000 0aaa	EQ Mid Q	(0 – 4) 0.5, 1.0, 2.0, 4.0, 8.0
00 46	0000 00aa	EQ High Frequency	(0 – 2) 2000, 4000, 8000 [Hz]
00 47	0aaa aaaa	EQ High Gain	(4 – 124) –12.0 – +12.0[dB] (1step = 0.2dB)
00 48	0aaa aaaa	Keyboard Velocity	(0 – 127) REAL, 1 – 127
00 49	0000 0aaa	Keyboard Sens	(1 – 5) SUPER LIGHT, LIGHT, MEDIUM, HEAVY, SUPER HEAVY
00 4A	000a aaaa	Keyboard Sens offset	(54 – 74) –10 – +10
00 4B	0aaa aaaa	Key Touch Velocity Delay Sens	(1 – 127) –63 – +63
00 4C	0aaa aaaa	Key Touch Velocity Key Follow	(1 – 127) –63 – +63
00 4D	0000 000a	Transpose Switch	(0 – 1) OFF, ON
00 4E	0aaa aaaa	Transpose Value	(23 – 106) –41 – +42
00 4F	0000 00aa	Keyboard Mode (Local)	(0 – 3) SINGLE, LAYER, SPLIT,SPLIT/LAYER
00 50	0aaa aaaa	<Reserved>	
00 51	0000 00aa	Keyboard Mode (External)	(0 – 3) SINGLE, LAYER, SPLIT,SPLIT/LAYER
00 52	0aaa aaaa	<Reserved>	
00 53	0aaa aaaa	Rhythm Pattern	(0 – 127)
00 54	0000 00aa	Rhythm Type	(0 – 1) 1, 2
00 55	0aaa aaaa	<Reserved>	
00 56	0aaa aaaa	<Reserved>	
00 57	0aaa aaaa	<Reserved>	
00 58	0000 000a	Rhythm Intro/Ending Switch	(0 – 1) OFF, ON
00 59	0000 000a	Rhythm Set Change	(0 – 1) OFF, ON
00 5A	0000 00aa	Arpeggio Part	(0 – 3) UPPER1, UPPER2, LOWER, ALL
00 5B	0000 000a	Arpeggio Switch	(0 – 1) OFF, ON
00 5C	00aa aaaa	Arpeggio Style	(0 – 44) 1 – 45
00 5D	00aa aaaa	Arpeggio Motif	(0 – 37) 1 – 38
00 5E	0aaa aaaa	Arpeggio Beat Pattern	(0 – 114) 1 – 115
00 5F	0aaa aaaa	Arpeggio Accent Rate	(0 – 100)
00 60	0aaa aaaa	Arpeggio Shuffle Rate	(50 – 90)
00 61	0aaa aaaa	Arpeggio Keyboard Velocity	(0 – 127) REAL, 1 – 127
00 62	0000 0aaa	Arpeggio Octave Range	(61 – 67) –3 – +3
00 63	0000 000a	Arpeggio Hold Sw	(0 – 1) OFF, ON
00 64	0aaa aaaa	Arpeggio Range Lower	(21 – 108) A0 – UPPER
00 65	0aaa aaaa	Arpeggio Range Upper	(21 – 108) LOWER – C8
00 66	0000 000a	<Reserved>	
00 67	000a aaaa	<Reserved>	
00 68	0000 000a	MFX Switch	(0 – 1) OFF, ON
00 69	0000 0aaa	MFX Source	(0 – 4) FIXED, UPPER1, UPPER2, LOWER, RHYTHM
00 6A	0000 00aa	MFX Destination	(0 – 2) SOURCE PART, SAME MFX PART, ALL
00 6B	0000 aaaa	Harmonic Bar Assign (RHYTHM:ON)	(1 – 9) 16,5–1/3',8',4',2–2/3',|' 1–3/5,2',1–1/3',1' |'
00 6C	0000 aaaa	Harmonic Bar Assign (RHYTHM:OFF)	(1 – 9) 16,5–1/3',8',4',2–2/3',|' 1–3/5,2',1–1/3',1' |'
00 6D	0000 aaaa	Harmonic Bar Assign (LOWER:ON)	(1 – 9) 16,5–1/3',8',4',2–2/3',|' 1–3/5,2',1–1/3',1' |'
00 6E	0000 aaaa	Harmonic Bar Assign (LOWER:OFF)	(1 – 9) 16,5–1/3',8',4',2–2/3',|' 1–3/5,2',1–1/3',1' |'
00 6F	0000 aaaa	Harmonic Bar Assign (UPPER2:ON)	(1 – 9) 16,5–1/3',8',4',2–2/3',|' 1–3/5,2',1–1/3',1' |'
00 70	0000 aaaa	Harmonic Bar Assign (UPPER2:OFF)	(1 – 9) 16,5–1/3',8',4',2–2/3',|' 1–3/5,2',1–1/3',1' |'
00 71	0000 aaaa	Harmonic Bar Assign (UPPER1:ON)	(1 – 9) 16,5–1/3',8',4',2–2/3',|' 1–3/5,2',1–1/3',1' |'
00 72	0000 aaaa	Harmonic Bar Assign (UPPER1:OFF)	(1 – 9) 16,5–1/3',8',4',2–2/3',|'
00 00 00 73		Total Size	

❍Setup Common MFX

Offset Address		Description	
00 00	0aaa aaaa	MFX Type	(0 – 65)
00 01	0aaa aaaa	<Reserved>	
00 02	0aaa aaaa	<Reserved>	
00 03	0aaa aaaa	<Reserved>	
00 04	000a aaaa	MFX Control Assign	(0 – 16) OFF, 1 – 16
# 00 05	0000 aaaa 0000 bbbb 0000 cccc		

	0000 dddd	MFX Parameter 1	(12768 – 52768) –20000 – +20000
# 00 09	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 2	(12768 – 52768) –20000 – +20000
# 00 0D	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 3	(12768 – 52768) –20000 – +20000
# 00 11	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 4	(12768 – 52768) –20000 – +20000
# 00 15	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 5	(12768 – 52768) –20000 – +20000
# 00 19	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 6	(12768 – 52768) –20000 – +20000
# 00 1D	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 7	(12768 – 52768) –20000 – +20000
# 00 21	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 8	(12768 – 52768) –20000 – +20000
# 00 25	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 9	(12768 – 52768) –20000 – +20000
# 00 29	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 10	(12768 – 52768) –20000 – +20000
# 00 2D	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 11	(12768 – 52768) –20000 – +20000
# 00 31	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 12	(12768 – 52768) –20000 – +20000
# 00 35	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 13	(12768 – 52768) –20000 – +20000
# 00 39	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 14	(12768 – 52768) –20000 – +20000
# 00 3D	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 15	(12768 – 52768) –20000 – +20000
# 00 41	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 16	(12768 – 52768) –20000 – +20000
# 00 45	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 17	(12768 – 52768) –20000 – +20000
# 00 49	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 18	(12768 – 52768) –20000 – +20000
# 00 4D	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 19	(12768 – 52768) –20000 – +20000
# 00 51	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 20	(12768 – 52768) –20000 – +20000
# 00 55	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 21	(12768 – 52768) –20000 – +20000
# 00 59	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 22	(12768 – 52768) –20000 – +20000
# 00 5D	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 23	(12768 – 52768) –20000 – +20000
# 00 61	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 24	(12768 – 52768) –20000 – +20000
# 00 65	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 25	(12768 – 52768) –20000 – +20000
# 00 69	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 26	(12768 – 52768) –20000 – +20000
# 00 6D	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 27	(12768 – 52768) –20000 – +20000
# 00 71	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 28	(12768 – 52768) –20000 – +20000
# 00 75	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 29	(12768 – 52768) –20000 – +20000
# 00 79	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 30	(12768 – 52768) –20000 – +20000
# 00 7D	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 31	(12768 – 52768) –20000 – +20000
# 01 01	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 32	(12768 – 52768) –20000 – +20000
00 00 01 05	Total Size		

❍Setup Common Chorus

Offset Address		Description	
00 00	0000 aaaa	Chorus Type	(0 – 2)
00 01	0aaa aaaa	Chorus Level	(0 – 127)
00 02	0000 00aa	Chorus Output Select	(0 – 2) MAIN, REV, MAIN+REV
# 00 03	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Chorus Parameter 1	(12768 – 52768) –20000 – +20000
# 00 07	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Chorus Parameter 2	(12768 – 52768) –20000 – +20000
# 00 0B	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Chorus Parameter 3	(12768 – 52768) –20000 – +20000
# 00 0F	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Chorus Parameter 4	(12768 – 52768) –20000 – +20000
# 00 13	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Chorus Parameter 5	(12768 – 52768) –20000 – +20000
# 00 17	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Chorus Parameter 6	(12768 – 52768) –20000 – +20000
# 00 1B	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Chorus Parameter 7	(12768 – 52768) –20000 – +20000
# 00 1F	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Chorus Parameter 8	(12768 – 52768) –20000 – +20000
# 00 23	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Chorus Parameter 9	(12768 – 52768) –20000 – +20000
# 00 27	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Chorus Parameter 10	(12768 – 52768) –20000 – +20000
# 00 2B	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Chorus Parameter 11	(12768 – 52768) –20000 – +20000
# 00 2F	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Chorus Parameter 12	(12768 – 52768) –20000 – +20000
00 00 00 33	Total Size		

❍Setup Common Reverb

Offset Address		Description	
00 00	0000 aaaa	Reverb Type	(0 – 4)
00 01	0aaa aaaa	Reverb Level	(0 – 127)
# 00 02	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 1	(12768 – 52768) –20000 – +20000
# 00 06	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 2	(12768 – 52768) –20000 – +20000
# 00 0A	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 3	(12768 – 52768) –20000 – +20000
# 00 0E	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 4	(12768 – 52768) –20000 – +20000
# 00 12	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 5	(12768 – 52768) –20000 – +20000
# 00 16	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 6	(12768 – 52768) –20000 – +20000

# 00 1A	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 7	(12768 – 52768) –20000 – +20000
# 00 1E	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 8	(12768 – 52768) –20000 – +20000
# 00 22	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 9	(12768 – 52768) –20000 – +20000
# 00 26	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 10	(12768 – 52768) –20000 – +20000
# 00 2A	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 11	(12768 – 52768) –20000 – +20000
# 00 2E	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 12	(12768 – 52768) –20000 – +20000
# 00 32	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 13	(12768 – 52768) –20000 – +20000
# 00 36	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 14	(12768 – 52768) –20000 – +20000
# 00 3A	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 15	(12768 – 52768) –20000 – +20000
# 00 3E	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 16	(12768 – 52768) –20000 – +20000
# 00 42	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 17	(12768 – 52768) –20000 – +20000
# 00 46	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 18	(12768 – 52768) –20000 – +20000
# 00 4A	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 19	(12768 – 52768) –20000 – +20000
# 00 4E	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Reverb Parameter 20	(12768 – 52768) –20000 – +20000
00 00 00 52	Total Size		

❍Setup Local Part

Offset Address		Description	
00 00	0aaa aaaa	Keyboard Range Lower	(21 – 108) A0 – UPPER
00 01	0aaa aaaa	Keyboard Range Upper	(21 – 108) LOWER – C8
00 02	0aaa aaaa	Velocity Sensitivity	(1 – 127) –63 – +63
00 03	0aaa aaaa	Velocity Max	(1 – 127)
00 04	0aaa aaaa	keyboard Transpose	(16 – 112) –48 – +48
00 05	0000 000a	Part Switch	(0 – 1) OFF, ON
00 06	0000 000a	Damper Switch	(0 – 1) OFF, ON
00 07	0000 000a	FC1 Switch	(0 – 1) OFF, ON
00 08	0000 000a	FC2 Switch	(0 – 1) OFF, ON
00 09	0000 000a	Modulation Switch	(0 – 1) OFF, ON
00 0A	0000 000a	Bender Switch	(0 – 1) OFF, ON
00 0B	0000 000a	Control Switch	(0 – 1) OFF, ON
00 0C	0000 aaaa	Local Part Assign	(0 – 15) 1 – 16
00 00 00 0D	Total Size		

❍Setup MIDI Tx Part

Offset Address		Description	
00 00	0aaa aaaa	Keyboard Range Lower	(21 – 108) A0 – UPPER
00 01	0aaa aaaa	Keyboard Range Upper	(21 – 108) LOWER – C8
00 02	0aaa aaaa	Velocity Sensitivity	(1 – 127) –63 – +63
00 03	0aaa aaaa	Velocity Max	(1 – 127)
00 04	0aaa aaaa	keyboard Transpose	(16 – 112) –48 – +48
00 05	0000 000a	Part Switch	(0 – 1) OFF, ON
00 06	0000 000a	Damper Switch	(0 – 1) OFF, ON
00 07	0000 000a	Foot Controller1 Switch	(0 – 1) OFF, ON
00 08	0000 000a	Foot Controller2 Switch	(0 – 1) OFF, ON
00 09	0000 000a	Modulation Switch	(0 – 1) OFF, ON
00 0A	0000 000a	Bender Switch	(0 – 1) OFF, ON
00 0B	0000 000a	Control Switch	(0 – 1) OFF, ON
00 0C	0000 aaaa	Transmit Channel	(0 – 15) 1 – 16
00 0D	0000 000a	Transmit Bank Select Switch	(0 – 1) OFF, ON
00 0E 00 0F	0aaa aaaa 0aaa aaaa	Transmit Bank Select MSB (CC# 0) Transmit Bank Select LSB (CC# 32)	(0 – 127) (0 – 127)
00 10	0000 000a	Transmit Program Change Switch	(0 – 1) OFF, ON
00 11	0aaa aaaa	Transmit Program Change#	(0 – 127)
00 12	0000 000a	Transmit Level Switch	(0 – 1) OFF, ON
00 13	0aaa aaaa	Transmit Level (CC# 7)	(0 – 127)
00 14	0000 000a	Transmit Pan Switch	(0 – 1) OFF, ON
00 15	0aaa aaaa	Transmit Pan(CC# 10)	(1 – 127) L63 – R63
00 16	0000 000a	Transmit Coarse Tune Switch	(0 – 1) OFF, ON
00 17	0aaa aaaa	Transmit Coarse Tune	(16 – 112) –48 – +48
00 18	0000 000a	Transmit Fine Tune Switch	(0 – 1) OFF, ON
00 19	0aaa aaaa	Transmit Fine Tune	(14 – 114) –50 – +50
00 1A	0000 000a	<Reserved>	
00 1B	0000 00aa	<Reserved>	
00 1C	0000 000a	Transmit Portamento Switch	(0 – 1) OFF, ON
00 1D	0000 000a	Transmit Portamento Switch Value	(0 – 1) OFF, ON
00 1E	0000 000a	Transmit Portamento Time Switch	(0 – 1) OFF, ON
00 1F	0aaa aaaa	Transmit Portamento Time	(0 – 127)
00 20	0000 000a	Transmit Cutoff Switch	(0 – 1) OFF, ON
00 21	0aaa aaaa	Transmit Cutoff	(1 – 127) –63 – +63
00 22	0000 000a	Transmit Resonance Switch	(0 – 1) OFF, ON
00 23	0aaa aaaa	Transmit Resonance	(1 – 127) –63 – +63
00 24	0000 000a	Transmit Attack Time Switch	(0 – 1) OFF, ON
00 25	0aaa aaaa	Transmit Attack Time	(1 – 127) –63 – +63
00 26	0000 000a	Transmit Release Time Switch	(0 – 1) OFF, ON
00 27	0aaa aaaa	Transmit Release Time	(1 – 127) –63 – +63
00 28	0000 000a	Transmit Pitch Bend Range Switch	(0 – 1) OFF, ON
00 29	00aa aaaa	Transmit Pitch Bend Range	(0 – 48)
00 2A	0000 000a	Transmit Chorus Level Switch	(0 – 1) OFF, ON
00 2B	0aaa aaaa	Transmit Chorus Level	(0 – 127)
00 2C	0000 000a	Transmit Reverb Level Switch	(0 – 1) OFF, ON
00 2D	0aaa aaaa	Transmit Reverb Level	(0 – 127)
00 00 00 2E	Total Size		

❍Setup Internal Part

Offset Address		Description	
00 00	0000 aaaa	Receive Channel	(0 – 15) 1 – 16
00 01 00 02 00 03	0aaa aaaa 0aaa aaaa 0aaa aaaa	Patch Bank Select MSB (CC# 0) Patch Bank Select LSB (CC# 32) Patch Program Change#	(0 – 127) (0 – 127) (0 – 127)
00 04 00 05	0aaa aaaa 0aaa aaaa	Part Level (CC# 7) Part Pan (CC# 10)	(0 – 127) (1 – 127) L63 – 63R
00 06	0000 000a	Part MFX Switch	(0 – 1) OFF, ON
00 07 00 08	0000 0aaa 0000 aaaa	Temperament Type Temperament Key	(0 – 7) (0 – 11) C, C# – Bb, B
00 09	0000 000a	Receive Bank Select Switch	(0 – 1) OFF, ON
00 0A	0000 000a	Receive Program Change Switch	(0 – 1) OFF, ON
00 0B	0000 000a	Receive Bender Switch	(0 – 1) OFF, ON
00 0C	0000 000a	Receive Modulation Switch	(0 – 1) OFF, ON
00 0D	0000 000a	Receive Volume Switch	(0 – 1) OFF, ON
00 0E	0000 000a	Receive Pan Switch	(0 – 1) OFF, ON
00 0F	0000 000a	Receive Hold–1 Switch	(0 – 1) OFF, ON
00 00 00 10	Total Size		

❍Setup Tone Backup

Offset Address	Description		
00 00	0aaa aaaa	Coarse Tune	(16 – 112) –48 – +48
00 01	0aaa aaaa	Fine Tune	(14 – 114) –50 – +50
00 02	0000 00aa	Stretch Tune Depth	(0 – 3) OFF, 1 – 3
00 03	0000 00aa	Mono/Poly	(0 – 2) MONO, POLY, MONO/LEGATO
00 04	0000 000a	Portamento Switch	(0 – 1) OFF, ON
00 05	0aaa aaaa	Portamento Time	(0 – 127)
00 06	0aaa aaaa	Cutoff	(1 – 127) –63 – +63
00 07	0aaa aaaa	Resonance	(1 – 127) –63 – +63
00 08	0aaa aaaa	Attack Time	(1 – 127) –63 – +63
00 09	0aaa aaaa	Release Time	(1 – 127) –63 – +63
00 0A	00aa aaaa	Pitch Bend Range	(0 – 24)
00 0B	0aaa aaaa	Chorus Amount	(0 – 127)
00 0C	0aaa aaaa	Reverb Amount	(0 – 127)
00 0D	0aaa aaaa	MFX Type	(0 – 65)
00 00 00 0E	Total Size		

❍Setup VK Tone Backup

Offset Address	Description		
00 00	0000 00aa	Percussion Harmonic	(0 – 2) OFF, 2ND, 3RD
00 01	0000 000a	Percussion Decay	(0 – 1) SLOW, FAST
00 02	0000 aaaa	Harmonic Bar 16'	(0–8)
00 03	0000 aaaa	Harmonic Bar 5–1/3	(0–8)
00 04	0000 aaaa	Harmonic Bar 8'	(0–8)
00 05	0000 aaaa	Harmonic Bar 4'	(0–8)
00 06	0000 aaaa	Harmonic Bar 2–2/3'	(0–8)
00 07	0000 aaaa	Harmonic Bar 2'	(0–8)
00 08	0000 aaaa	Harmonic Bar 1–3/5'	(0–8)
00 09	0000 aaaa	Harmonic Bar 1–1/3'	(0–8)
00 0A	0000 aaaa	Harmonic Bar 1'	(0–8)
00 00 00 0B	Total Size		

❍Bulk Dump parameters

* These messages are transmitted when Bulk Dump SETUP function is executed.
* These messages will be written when SETUP write message is received.

Start Address	Description	Size
10 01 00 00	Setup 001	00 00 05 6C
10 02 00 00	Setup 002	00 00 05 6C
:	:	:
10 64 00 00	Setup 100	00 00 05 6C

❍SETUP Write

* These messages are transmitted when Bulk Dump SETUP function is executed.
* After receiving Bulk dump parameters, when this message is received, execute Write Setup function.

Status	Data byte	Status
F0H	41H, dev, 00H, 43H, 12H, 7FH, 7FH, 7EH, ssH, nnH, sum	F7H

Byte	Explanation
F0H	Exclusive status
41H	ID number (Roland)
dev	device ID (dev: 10H - 1FH)
00H	model ID #1 (RD-700)
43H	model ID #2 (RD-700)
12H	command ID (DT1)
7FH	address
7FH	address
7EH	address
ssH	From
nnH	Num
sum	check sum
F7H	EOX (End Of Exclusive)

4. GS (Model ID = 42H)

❍System Parameter

#	Start Address	Description		
#	40 00 00	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Master Tune	(24 – 2024) –100.0 – 100.0 [cent]
	40 00 04	0aaa aaaa	Master Volume	(0 – 127)
	40 00 05	0aaa aaaa	Master Key Shift	(40 – 88) –24 – +24 [semitone]
	40 00 06	0aaa aaaa	Master Pan	(1 – 127) L63 – 63R
	40 00 7F	0aaa aaaa	Mode Set	(0, 127) GS–RESET, GS–EXIT

❍Common Parameter

Start Address	Description		
40 01 10	0aaa aaaa	Voice Reserve 1	(0 – 24)
40 01 11	0aaa aaaa	Voice Reserve 2	(0 – 24)
40 01 12	0aaa aaaa	Voice Reserve 3	(0 – 24)
40 01 13	0aaa aaaa	Voice Reserve 4	(0 – 24)
40 01 14	0aaa aaaa	Voice Reserve 5	(0 – 24)
40 01 15	0aaa aaaa	Voice Reserve 6	(0 – 24)
40 01 16	0aaa aaaa	Voice Reserve 7	(0 – 24)
40 01 17	0aaa aaaa	Voice Reserve 8	(0 – 24)
40 01 18	0aaa aaaa	Voice Reserve 9	(0 – 24)
40 01 19	0aaa aaaa	Voice Reserve 10	(0 – 24)
40 01 1A	0aaa aaaa	Voice Reserve 11	(0 – 24)
40 01 1B	0aaa aaaa	Voice Reserve 12	(0 – 24)
40 01 1C	0aaa aaaa	Voice Reserve 13	(0 – 24)
40 01 1D	0aaa aaaa	Voice Reserve 14	(0 – 24)
40 01 1E	0aaa aaaa	Voice Reserve 15	(0 – 24)
40 01 1F	0aaa aaaa	Voice Reserve 16	(0 – 24)
40 01 30	0aaa aaaa	Reverb Macro	(0 – 7)
40 01 31	0aaa aaaa	Reverb Character	(0 – 7)
40 01 32	0aaa aaaa	Reverb Pre–LPF	(0 – 7)
40 01 33	0aaa aaaa	Reverb Level	(0 – 127)
40 01 34	0aaa aaaa	Reverb Time	(0 – 127)
40 01 35	0aaa aaaa	Reverb Delay Feedback	(0 – 127)
40 01 36	0aaa aaaa	Reverb Send Level to Chorus	(0 – 127)
40 01 38	0aaa aaaa	Chorus Macro	(0 – 7)
40 01 39	0aaa aaaa	Chorus Pre–LPF	(0 – 7)
40 01 3A	0aaa aaaa	Chorus Level	(0 – 127)
40 01 3B	0aaa aaaa	Chorus Feedback	(0 – 127)
40 01 3C	0aaa aaaa	Chorus Delay	(0 – 127)
40 01 3D	0aaa aaaa	Chorus Rate	(0 – 127)
40 01 3E	0aaa aaaa	Chorus Depth	(0 – 127)
40 01 3F	0aaa aaaa	Chorus Send Level to Reverb	(0 – 127)

❍Part Parameter

#	Start Address	Description		
#	40 1x 00	0aaa aaaa 0aaa aaaa	Tone Number CC#00 Value Tone Number PC Value	(0 – 127) (0 – 127)
	40 1x 02	0aaa aaaa	Rx. Channel	(0 – 16) 1 – 16, OFF
	40 1x 03	0000 000a	Rx. Pitch Bend	(0 – 1) OFF, ON
	40 1x 04	0000 000a	Rx. Channel Pressure	(0 – 1) OFF, ON
	40 1x 05	0000 000a	Rx. Program Change	(0 – 1) OFF, ON
	40 1x 06	0000 000a	Rx. Control Change	(0 – 1) OFF, ON
	40 1x 07	0000 000a	Rx. Poly Pressure	(0 – 1) OFF, ON
	40 1x 08	0000 000a	Rx. Note Message	(0 – 1) OFF, ON
	40 1x 09	0000 000a	Rx. RPN	(0 – 1) OFF, ON
	40 1x 0A	0000 000a	Rx. NRPN	(0 – 1) OFF, ON
	40 1x 0B	0000 000a	Rx. Modulation	(0 – 1) OFF, ON
	40 1x 0C	0000 000a	Rx. Volume	(0 – 1) OFF, ON
	40 1x 0D	0000 000a	Rx. Panpot	(0 – 1) OFF, ON
	40 1x 0E	0000 000a	Rx. Expression	(0 – 1) OFF, ON
	40 1x 0F	0000 000a	Rx. Hold–1	(0 – 1) OFF, ON
	40 1x 10	0000 000a	Rx. Portamento	(0 – 1) OFF, ON
	40 1x 11	0000 000a	Rx. Sostenuto	(0 – 1) OFF, ON
	40 1x 12	0000 000a	Rx. Soft	(0 – 1) OFF, ON
	40 1x 13	0aaa aaaa	Mono / Poly Mode	(0 – 1) MODE, POLY
	40 1x 14	0aaa aaaa	Assign Mode	(0 – 2) SINGLE, LIMITED–MULTI, FULL–MULTI
	40 1x 15	0aaa aaaa	Use for Rhythm Part	(0 – 2) OFF, MAP1, MAP2
	40 1x 16	0aaa aaaa	Pitch Key Shift	(40 – 88) –24 – +24 [semitone]
#	40 1x 17	0000 aaaa 0000 bbbb	Pitch Offset Fine	(8 – 248) –12.0 – +12.0 [Hz]
	40 1x 19	0aaa aaaa	Part Level (CC# 7)	(0 – 127)
	40 1x 1A	0aaa aaaa	Velocity Sens Depth	(0 – 127) –64 – +63
	40 1x 1B	0aaa aaaa	Velocity Sens Offset	(0 – 127) –64 – +63
	40 1x 1C	0aaa aaaa	Part Panpot (CC# 10)	(0 – 127) RANDOM, L63 – 63R
	40 1x 1D	0aaa aaaa	Keyboard Range Low	(0 – 127)
	40 1x 1E	0aaa aaaa	Keyboard Range High	(0 – 127)
	40 1x 1F	0aaa aaaa	CC1 Controller Number	(0 – 95)
	40 1x 20	0aaa aaaa	CC2 Controller Number	(0 – 95)
	40 1x 21	0aaa aaaa	Chorus Send Level (CC# 93)	(0 – 127)
	40 1x 22	0aaa aaaa	Reverb Send Level (CC# 93)	(0 – 127)
	40 1x 23	0000 000a	Rx. Bank Select	(0 – 1) OFF, ON

40 1x 24	0000 000a	Rx. Bank Select LSB	(0 – 1) OFF, ON
40 1x 30	0aaa aaaa	Tone Modify 1 (Vibrato Rate)	(0 – 127) –64 – +63
40 1x 31	0aaa aaaa	Tone Modify 2 (Vibrato Depth)	(0 – 127) –64 – +63
40 1x 32	0aaa aaaa	Tone Modify 3 (TVF Cutoff Freq.)	(0 – 127) –64 – +63
40 1x 33	0aaa aaaa	Tone Modify 4 (TVF Resonance)	(0 – 127) –64 – +63
40 1x 34	0aaa aaaa	Tone Modify 5 (TVF&TVA Env. Attack)	(0 – 127) –64 – +63
40 1x 35	0aaa aaaa	Tone Modify 6 (TVF&TVA Env. Decay)	(0 – 127) –64 – +63
40 1x 36	0aaa aaaa	Tone Modify 7 (TVF&TVA ENv. Release)	(0 – 127) –64 – +63
40 1x 37	0aaa aaaa	Tone Modify 8 (Vibrato Delay)	(0 – 127) –64 – +63
40 1x 40	0aaa aaaa	Scale Tuning C	(0 – 127) –64 – +63 [cent]
40 1x 41	0aaa aaaa	Scale Tuning C#	(0 – 127) –64 – +63 [cent]
40 1x 42	0aaa aaaa	Scale Tuning D	(0 – 127) –64 – +63 [cent]
40 1x 43	0aaa aaaa	Scale Tuning D#	(0 – 127) –64 – +63 [cent]
40 1x 44	0aaa aaaa	Scale Tuning E	(0 – 127) –64 – +63 [cent]
40 1x 45	0aaa aaaa	Scale Tuning F	(0 – 127) –64 – +63 [cent]
40 1x 46	0aaa aaaa	Scale Tuning F#	(0 – 127) –64 – +63 [cent]
40 1x 47	0aaa aaaa	Scale Tuning G	(0 – 127) –64 – +63 [cent]
40 1x 48	0aaa aaaa	Scale Tuning G#	(0 – 127) –64 – +63 [cent]
40 1x 49	0aaa aaaa	Scale Tuning A	(0 – 127) –64 – +63 [cent]
40 1x 4A	0aaa aaaa	Scale Tuning A#	(0 – 127) –64 – +63 [cent]
40 1x 4B	0aaa aaaa	Scale Tuning B	(0 – 127) –64 – +63 [cent]
40 2x 00	0aaa aaaa	Mod Pitch Control	(40 – 88) –24 – +24 [semitone]
40 2x 01	0aaa aaaa	Mod TVF Cutoff Control	(0 – 127) –9600 – +9600 [cent]
40 2x 02	0aaa aaaa	Mod Amplitude Control	(0 – 127) –100.0 – +100.0 [%]
40 2x 03	0aaa aaaa	Mod LFO1 Rate Control	(0 – 127) –10.0 – +10.0 [Hz]
40 2x 04	0aaa aaaa	Mod LFO1 Pitch Control	(0 – 127) 0 – 600 [cent]
40 2x 05	0aaa aaaa	Mod LFO1 TVF Depth	(0 – 127) 0 – 2400 [cent]
40 2x 06	0aaa aaaa	Mod LFO1 TVA Depth	(0 – 127) 0 – 100.0 [%]
40 2x 07	0aaa aaaa	Mod LFO2 Rate Control	(0 – 127) –10.0 – +10.0 [Hz]
40 2x 08	0aaa aaaa	Mod LFO2 Pitch Control	(0 – 127) 0 – 600 [cent]
40 2x 09	0aaa aaaa	Mod LFO2 TVF Depth	(0 – 127) 0 – 2400 [cent]
40 2x 0A	0aaa aaaa	Mod LFO2 TVA Depth	(0 – 127) 0 – 100.0 [%]
40 2x 10	0aaa aaaa	Bend Pitch Control	(64 – 88) 0 – 24 [semitone]
40 2x 11	0aaa aaaa	Bend TVF Cutoff Control	(0 – 127) –9600 – +9600 [cent]
40 2x 12	0aaa aaaa	Bend Amplitude Control	(0 – 127) –100.0 – +100.0 [%]
40 2x 13	0aaa aaaa	Bend LFO1 Rate Control	(0 – 127) –10.0 – +10.0 [Hz]
40 2x 14	0aaa aaaa	Bend LFO1 Pitch Control	(0 – 127) 0 – 600 [cent]
40 2x 15	0aaa aaaa	Bend LFO1 TVF Depth	(0 – 127) 0 – 2400 [cent]
40 2x 16	0aaa aaaa	Bend LFO1 TVA Depth	(0 – 127) 0 – 100.0 [%]
40 2x 17	0aaa aaaa	Bend LFO2 Rate Control	(0 – 127) –10.0 – +10.0 [Hz]
40 2x 18	0aaa aaaa	Bend LFO2 Pitch Control	(0 – 127) 0 – 600 [cent]
40 2x 19	0aaa aaaa	Bend LFO2 TVF Depth	(0 – 127) 0 – 2400 [cent]
40 2x 1A	0aaa aaaa	Bend LFO2 TVA Depth	(0 – 127) 0 – 100.0 [%]
40 2x 20	0aaa aaaa	CAf Pitch Control	(40 – 88) –24 – +24 [semitone]
40 2x 21	0aaa aaaa	CAf TVF Cutoff Control	(0 – 127) –9600 – +9600 [cent]
40 2x 22	0aaa aaaa	CAf Amplitude Control	(0 – 127) –100.0 – +100.0 [%]
40 2x 23	0aaa aaaa	CAf LFO1 Rate Control	(0 – 127) –10.0 – +10.0 [Hz]
40 2x 24	0aaa aaaa	CAf LFO1 Pitch Control	(0 – 127) 0 – 600 [cent]
40 2x 25	0aaa aaaa	CAf LFO1 TVF Depth	(0 – 127) 0 – 2400 [cent]
40 2x 26	0aaa aaaa	CAf LFO1 TVA Depth	(0 – 127) 0 – 100.0 [%]
40 2x 27	0aaa aaaa	CAf LFO2 Rate Control	(0 – 127) –10.0 – +10.0 [Hz]
40 2x 28	0aaa aaaa	CAf LFO2 Pitch Control	(0 – 127) 0 – 600 [cent]
40 2x 29	0aaa aaaa	CAf LFO2 TVF Depth	(0 – 127) 0 – 2400 [cent]
40 2x 2A	0aaa aaaa	CAf LFO2 TVA Depth	(0 – 127) 0 – 100.0 [%]
40 2x 30	0aaa aaaa	PAf Pitch Control	(40 – 88) –24 – +24 [semitone]
40 2x 31	0aaa aaaa	PAf TVF Cutoff Control	(0 – 127) –9600 – +9600 [cent]
40 2x 32	0aaa aaaa	PAf Amplitude Control	(0 – 127) –100.0 – +100.0 [%]
40 2x 33	0aaa aaaa	PAf LFO1 Rate Control	(0 – 127) –10.0 – +10.0 [Hz]
40 2x 34	0aaa aaaa	PAf LFO1 Pitch Control	(0 – 127) 0 – 600 [cent]
40 2x 35	0aaa aaaa	PAf LFO1 TVF Depth	(0 – 127) 0 – 2400 [cent]
40 2x 36	0aaa aaaa	PAf LFO1 TVA Depth	(0 – 127) 0 – 100.0 [%]
40 2x 37	0aaa aaaa	PAf LFO2 Rate Control	(0 – 127) –10.0 – +10.0 [Hz]
40 2x 38	0aaa aaaa	PAf LFO2 Pitch Control	(0 – 127) 0 – 600 [cent]
40 2x 39	0aaa aaaa	PAf LFO2 TVF Depth	(0 – 127) 0 – 2400 [cent]
40 2x 3A	0aaa aaaa	PAf LFO2 TVA Depth	(0 – 127) 0 – 100.0 [%]
40 2x 40	0aaa aaaa	CC1 Pitch Control	(40 – 88) –24 – +24 [semitone]
40 2x 41	0aaa aaaa	CC1 TVF Cutoff Control	(0 – 127) –9600 – +9600 [cent]
40 2x 42	0aaa aaaa	CC1 Amplitude Control	(0 – 127) –100.0 – +100.0 [%]
40 2x 43	0aaa aaaa	CC1 LFO1 Rate Control	(0 – 127) –10.0 – +10.0 [Hz]
40 2x 44	0aaa aaaa	CC1 LFO1 Pitch Control	(0 – 127) 0 – 600 [cent]
40 2x 45	0aaa aaaa	CC1 LFO1 TVF Depth	(0 – 127) 0 – 2400 [cent]
40 2x 46	0aaa aaaa	CC1 LFO1 TVA Depth	(0 – 127) 0 – 100.0 [%]
40 2x 47	0aaa aaaa	CC1 LFO2 Rate Control	(0 – 127) –10.0 – +10.0 [Hz]
40 2x 48	0aaa aaaa	CC1 LFO2 Pitch Control	(0 – 127) 0 – 600 [cent]
40 2x 49	0aaa aaaa	CC1 LFO2 TVF Depth	(0 – 127) 0 – 2400 [cent]
40 2x 4A	0aaa aaaa	CC1 LFO2 TVA Depth	(0 – 127) 0 – 100.0 [%]
40 2x 50	0aaa aaaa	CC2 Pitch Control	(40 – 88) –24 – +24 [semitone]
40 2x 51	0aaa aaaa	CC2 TVF Cutoff Control	(0 – 127) –9600 – +9600 [cent]
40 2x 52	0aaa aaaa	CC2 Amplitude Control	(0 – 127) –100.0 – +100.0 [%]
40 2x 53	0aaa aaaa	CC2 LFO1 Rate Control	(0 – 127) –10.0 – +10.0 [Hz]
40 2x 54	0aaa aaaa	CC2 LFO1 Pitch Control	(0 – 127) 0 – 600 [cent]
40 2x 55	0aaa aaaa	CC2 LFO1 TVF Depth	(0 – 127) 0 – 2400 [cent]
40 2x 56	0aaa aaaa	CC2 LFO1 TVA Depth	(0 – 127) 0 – 100.0 [%]
40 2x 57	0aaa aaaa	CC2 LFO2 Rate Control	(0 – 127) –10.0 – +10.0 [Hz]
40 2x 58	0aaa aaaa	CC2 LFO2 Pitch Control	(0 – 127) 0 – 600 [cent]
40 2x 59	0aaa aaaa	CC2 LFO2 TVF Depth	(0 – 127) 0 – 2400 [cent]
40 2x 5A	0aaa aaaa	CC2 LFO2 TVA Depth	(0 – 127) 0 – 100.0 [%]

x: BLOCK NUMBER (0-F)
Part 1 (MIDI ch = 1) x = 1
Part 2 (MIDI ch = 2) x = 2
: : :
Part 9 (MIDI ch = 9) x = 9
Part10 (MIDI ch = 10) x = 0
Part11 (MIDI ch = 11) x = A
Part12 (MIDI ch = 12) x = B
: : :
Part16 (MIDI ch = 16) x = F

❍Drum Setup Parameter

Start Address		Description	
41 m0 00	0aaa aaaa	Drum Map Name 1	(32 – 127) 32 – 127 [ASCII]
41 m0 01	0aaa aaaa	Drum Map Name 2	(32 – 127) 32 – 127 [ASCII]
41 m0 02	0aaa aaaa	Drum Map Name 3	(32 – 127) 32 – 127 [ASCII]
41 m0 03	0aaa aaaa	Drum Map Name 4	(32 – 127) 32 – 127 [ASCII]
41 m0 04	0aaa aaaa	Drum Map Name 5	(32 – 127) 32 – 127 [ASCII]
41 m0 05	0aaa aaaa	Drum Map Name 6	(32 – 127) 32 – 127 [ASCII]
41 m0 06	0aaa aaaa	Drum Map Name 7	(32 – 127) 32 – 127 [ASCII]
41 m0 07	0aaa aaaa	Drum Map Name 8	(32 – 127) 32 – 127 [ASCII]
41 m0 08	0aaa aaaa	Drum Map Name 9	(32 – 127) 32 – 127 [ASCII]
41 m0 09	0aaa aaaa	Drum Map Name 10	(32 – 127) 32 – 127 [ASCII]
41 m0 0A	0aaa aaaa	Drum Map Name 11	(32 – 127) 32 – 127 [ASCII]
41 m0 0B	0aaa aaaa	Drum Map Name 12	(32 – 127) 32 – 127 [ASCII]
41 m1 rr	0aaa aaaa	Play Note Number	(0 – 127)
41 m2 rr	0aaa aaaa	Level	(0 – 127)
41 m3 rr	0aaa aaaa	Assign Group Number	(0 – 127) NON, 1 – 127
41 m4 rr	0aaa aaaa	Panpot	(0 – 127) RANDOM, L63 – 63R
41 m5 rr	0aaa aaaa	Reverb Send Level	(0 – 127) 0.0 – 1.0
41 m6 rr	0aaa aaaa	Chorus Send Level	(0 – 127) 0.0 – 1.0
41 m7 rr	0000 000a	Rx. Note Off	(0 – 1) OFF, ON
41 m8 rr	0000 000a	Rx. Note On	(0 – 1) OFF, ON

m: Map number (0 = MAP1, 1 = MAP2)
rr: drum part note number (00H-7FH)

■Arpeggio Parameter List

●Arpeggio Style

value	parameter	value	parameter	value	parameter
0	1/ 4	15	HEAVY SLAP	30	SWING WALTZ
1	1/ 6	16	LIGHT SLAP	31	REGGAE
2	1/ 8	17	WALK BASS	32	PERCUSSION
3	1/12	18	RHYTHM GTR 1	33	HARP
4	1/16	19	RHYTHM GTR 2	34	SHAMISEN
5	1/32	20	RHYTHM GTR 3	35	BOUND BALL
6	PORTAMENTO A	21	RHYTHM GTR 4	36	RANDOM
7	PORTAMENTO B	22	RHYTHM GTR 5	37	BOSSA NOVA
8	GLISSANDO	23	3 FINGER	38	SALSA
9	SEQUENCE A	24	STRUM GTR UP	39	MAMBO
10	SEQUENCE B	25	STRUM GTR DOWN	40	LATIN PERCUSSION
11	SEQUENCE C	26	STRUM GTR UP&DW	41	SAMBA
12	SEQUENCE D	27	PIANO BACKING	42	TANGO
13	ECHO	28	CLAVI CHORD	43	HOUSE
14	SYNTH BASS	29	WALTZ		

●Arpeggio Motif

value	parameter	value	parameter	value	parameter
0	SINGLE UP	13	GLISSANDO	26	BASS+UP 7
1	SINGLE DOWN	14	CHORD	27	BASS+UP 8
2	SINGLE UP&DOWN	15	BASS+CHORD 1	28	BASS+RND 1
3	SINGLE RANDOM	16	BASS+CHORD 2	29	BASS+RND 2
4	DUAL UP	17	BASS+CHORD 3	30	BASS+RND 3
5	DUAL DOWN	18	BASS+CHORD 4	31	TOP+UP 1
6	DUAL UP&DOWN	19	BASS+CHORD 5	32	TOP+UP 2
7	DUAL RANDOM	20	BASS+UP 1	33	TOP+UP 3
8	TRIPLE UP	21	BASS+UP 2	34	TOP+UP 4
9	TRIPLE DOWN	22	BASS+UP 3	35	TOP+UP 5
10	TRIPLE UP&DOWN	23	BASS+UP 4	36	TOP+UP 6
11	TRIPLE RANDOM	24	BASS+UP 5	37	BASS+UP+TOP
12	NOTE ORDER	25	BASS+UP 6		

●Arpeggio Beat Pattern

value	parameter	value	parameter	value	parameter
0	1/ 4	40	SEQ—A 5	80	STRUM 4
1	1/ 6	41	SEQ—A 6	81	STRUM 5
2	1/ 8	42	SEQ—A 7	82	STRUM 6
3	1/12	43	SEQ—B 1	83	STRUM 7
4	1/16 1	44	SEQ—B 2	84	STRUM 8
5	1/16 2	45	SEQ—B 3	85	REGGAE 1
6	1/16 3	46	SEQ—B 4	86	REGGAE 2
7	1/32 1	47	SEQ—B 5	87	REFRAIN 1
8	1/32 2	48	SEQ—C 1	88	REFRAIN 2
9	1/32 3	49	SEQ—C 2	89	PERC 1
10	PORTA—A 01	50	SEQ—D 1	90	PERC 2
11	PORTA—A 02	51	SEQ—D 2	91	PERC 3
12	PORTA—A 03	52	SEQ—D 3	92	PERC 4
13	PORTA—A 04	53	SEQ—D 4	93	WALKBS
14	PORTA—A 05	54	SEQ—D 5	94	HARP
15	PORTA—A 06	55	SEQ—D 6	95	BOUND
16	PORTA—A 07	56	SEQ—D 7	96	RANDOM
17	PORTA—A 08	57	SEQ—D 8	97	BOSSA NOVA
18	PORTA—A 09	58	ECHO 1	98	SALSA 1
19	PORTA—A 10	59	ECHO 2	99	SALSA 2
20	PORTA—A 11	60	ECHO 3	100	SALSA 3
21	PORTA—B 01	61	MUTE 01	101	SALSA 4
22	PORTA—B 02	62	MUTE 02	102	MAMBO 1
23	PORTA—B 03	63	MUTE 03	103	MAMBO 2
24	PORTA—B 04	64	MUTE 04	104	CLAVE
25	PORTA—B 05	65	MUTE 05	105	REV CLA
26	PORTA—B 06	66	MUTE 06	106	GUIRO
27	PORTA—B 07	67	MUTE 07	107	AGOGO
28	PORTA—B 08	68	MUTE 08	108	SAMBA
29	PORTA—B 09	69	MUTE 09	109	TANGO 1
30	PORTA—B 10	70	MUTE 10	110	TANGO 2
31	PORTA—B 11	71	MUTE 11	111	TANGO 3
32	PORTA—B 12	72	MUTE 12	112	TANGO 4
33	PORTA—B 13	73	MUTE 13	113	HOUSE 1
34	PORTA—B 14	74	MUTE 14	114	HOUSE 2
35	PORTA—B 15	75	MUTE 15		
36	SEQ—A 1	76	MUTE 16		
37	SEQ—A 2	77	STRUM 1		
38	SEQ—A 3	78	STRUM 2		
39	SEQ—A 4	79	STRUM 3		

■Decimal and Hexadecimal Table

(An "H" is appended to the end of numbers in hexadecimal notation.)

In MIDI documentation, data values and addresses/sizes of Exclusive messages, etc. are expressed as hexadecimal values for each 7 bits.

The following table shows how these correspond to decimal numbers.

D	H	D	H	D	H	D	H
0	00H	32	20H	64	40H	96	60H
1	01H	33	21H	65	41H	97	61H
2	02H	34	22H	66	42H	98	62H
3	03H	35	23H	67	43H	99	63H
4	04H	36	24H	68	44H	100	64H
5	05H	37	25H	69	45H	101	65H
6	06H	38	26H	70	46H	102	66H
7	07H	39	27H	71	47H	103	67H
8	08H	40	28H	72	48H	104	68H
9	09H	41	29H	73	49H	105	69H
10	0AH	42	2AH	74	4AH	106	6AH
11	0BH	43	2BH	75	4BH	107	6BH
12	0CH	44	2CH	76	4CH	108	6CH
13	0DH	45	2DH	77	4DH	109	6DH
14	0EH	46	2EH	78	4EH	110	6EH
15	0FH	47	2FH	79	4FH	111	6FH
16	10H	48	30H	80	50H	112	70H
17	11H	49	31H	81	51H	113	71H
18	12H	50	32H	82	52H	114	72H
19	13H	51	33H	83	53H	115	73H
20	14H	52	34H	84	54H	116	74H
21	15H	53	35H	85	55H	117	75H
22	16H	54	36H	86	56H	118	76H
23	17H	55	37H	87	57H	119	77H
24	18H	56	38H	88	58H	120	78H
25	19H	57	39H	89	59H	121	79H
26	1AH	58	3AH	90	5AH	122	7AH
27	1BH	59	3BH	91	5BH	123	7BH
28	1CH	60	3CH	92	5CH	124	7CH
29	1DH	61	3DH	93	5DH	125	7DH
30	1EH	62	3EH	94	5EH	126	7EH
31	1FH	63	3FH	95	5FH	127	7FH

D: decimal

H: hexadecimal

* Decimal values such as MIDI channel and program change are listed as one greater than the values given in the above table.
* A 7-bit byte can express data in the range of 128 steps. For data where greater precision is required, we must use two or more bytes. For example, two hexadecimal numbers aa bbH expressing two 7-bit bytes would indicate a value of aa x 128+bb.
* In the case of values which have a ± sign, 00H = -64, 40H = ±0, and 7FH = +63, so that the decimal expression would be 64 less than the value given in the above chart. In the case of two types, 00 00H = -8192, 40 00H = ±0, and 7F 7FH = +8191. For example, if aa bbH were expressed as decimal, this would be aa bbH - 40 00H = aa x 128+bb - 64 x 128.
* Data marked "Use nibbled data" is expressed in hexadecimal in 4-bit units. A value expressed as a 2-byte nibble 0a 0bH has the value of a x 16+b.

<Example1> What is the decimal expression of 5AH?

From the preceding table, 5AH = 90

<Example2> What is the decimal expression of the value 12 34H given as hexadecimal for each 7 bits?

From the preceding table, since 12H = 18 and 34H = 52

18 x 128+52 = 2356

<Example3> What is the decimal expression of the nibbled value 0A 03 09 0D?

From the preceding table, since 0AH = 10, 03H = 3, 09H = 9, 0DH = 13

((10 x 16+3) x 16+9) x 16+13 = 41885

<Example4> What is the nibbled expression of the decimal value 1258?

```
16 ) 1258
16 )   78 ...10
16 )    4 ...14
        0 ... 4
```

Since from the preceding table, 0 = 00H, 4 = 04H, 14 = 0EH, 10 = 0AH, the result is: 00 04 0E 0AH.

■Examples of Actual MIDI Messages

<Example1> 92 3E 5F

9n is the Note-on status, and n is the MIDI channel number. Since 2H = 2, 3EH = 62, and 5FH = 95, this is a Note-on message with MIDI CH = 3, note number 62 (note name is D4), and velocity 95.

<Example2> CE 49

CnH is the Program Change status, and n is the MIDI channel number. Since EH = 14 and 49H = 73, this is a Program Change message with MIDI CH = 15, program number 74 (Flute in GS).

<Example3> EA 00 28

EnH is the Pitch Bend Change status, and n is the MIDI channel number. The 2nd byte (00H = 0) is the LSB and the 3rd byte (28H = 40) is the MSB, but Pitch Bend Value is a signed number in which 40 00H (= 64 x 12+80 = 8192) is 0, so this Pitch Bend Value is
28 00H - 40 00H = 40 x 12+80 - (64 x 12+80) = 5120 - 8192 = -3072
If the Pitch Bend Sensitivity is set to 2 semitones, -8192 (00 00H) will cause the pitch to change -200 cents, so in this case -200 x (-3072) ÷ (-8192) = -75 cents of Pitch Bend is being applied to MIDI channel 11.

<Example4> B3 64 00 65 00 06 0C 26 00 64 7F 65 7F

BnH is the Control Change status, and n is the MIDI channel number. For Control Changes, the 2nd byte is the control number, and the 3rd byte is the value. In a case in which two or more messages consecutive messages have the same status, MIDI has a provision called "running status" which allows the status byte of the second and following messages to be omitted. Thus, the above messages have the following meaning.

B3	64 00	MIDI ch.4, lower byte of RPN parameter number:	00H
(B3)	65 00	(MIDI ch.4) upper byte of RPN parameter number:	00H
(B3)	06 0C	(MIDI ch.4) upper byte of parameter value:	0CH
(B3)	26 00	(MIDI ch.4) lower byte of parameter value:	00H
(B3)	64 7F	(MIDI ch.4) lower byte of RPN parameter number:	7FH
(B3)	65 7F	(MIDI ch.4) upper byte of RPN parameter number:	7FH

In other words, the above messages specify a value of 0C 00H for RPN parameter number 00 00H on MIDI channel 4, and then set the RPN parameter number to 7F 7FH.

RPN parameter number 00 00H is Pitch Bend Sensitivity, and the MSB of the value indicates semitone units, so a value of 0CH = 12 sets the maximum pitch bend range to ±12 semitones (1 octave). (On GS sound generators the LSB of Pitch Bend Sensitivity is ignored, but the LSB should be transmitted anyway (with a value of 0) so that operation will be correct on any device.)

Once the parameter number has been specified for RPN or NRPN, all Data Entry messages transmitted on that same channel will be valid, so after the desired value has been transmitted, it is a good idea to set the parameter number to 7F 7FH to prevent accidents. This is the reason for the (B3) 64 7F (B3) 65 7F at the end.

It is not desirable for Performance data (such as Standard MIDI File data) to contain many events with running status as given in <Example 4>. This is because if playback is halted during the song and then rewound or fast-forwarded, the sequencer may not be able to transmit the correct status, and the sound generator will then misinterpret the data. Take care to give each event its own status.

It is also necessary that the RPN or NRPN parameter number setting and the value setting be done in the proper order. On some sequencers, events occurring in the same (or consecutive) clock may be transmitted in an order different than the order in which they were received. For this reason it is a good idea to slightly skew the time of each event (about 1 tick for TPQN = 96, and about 5 ticks for TPQN = 480).

* TPQN: Ticks Per Quarter Note

■Example of an Exclusive Message and Calculating a Checksum

Roland Exclusive messages (RQ1, DT1) are transmitted with a checksum at the end (before F7) to make sure that the message was correctly received. The value of the checksum is determined by the address and data (or size) of the transmitted Exclusive message.

●How to calculate the checksum

(hexadecimal numbers are indicated by "H")
The checksum is a value derived by adding the address, size, and checksum itself and inverting the lower 7 bits.
Here's an example of how the check sum is calculated. We will assume that in the Exclusive message we are transmitting, the address is aa bb cc ddH and the data or size is ee ffH.

aa + bb + cc + dd + ee + ff = sum
sum ÷ 128 = quotient ... remainder
128 - remainder = checksum

<Example1> Setting CHORUS TYPE to DELAY (DT1)

According to the "Parameter Address Map" (p. 153), the start address of Temporary Setup is 10 00 00 00H, the offset address of CHORUS at Setup is 04 00H, and the address of CHORUS TYPE is 00 00H. Therefore the address of CHORUS TYPE of Setup is;

```
   10 00 00 00H
         04 00H
+)       00 00H
   10 00 04 00H
```

DELAY has the value of 02H.

So the system exclusive message should be sent is;

F0	41	10	00 43	12	10 00 04 00	02	??	F7
(1)	(2)	(3)	(4)	(5)	address	data	checksum	(6)

(1) Exclusive Status (2) ID (Roland) (3) Device ID (17)
(4) Model ID (RD-700) (5) Command ID (DT1) (6) End of Exclusive

Then calculate the checksum.

10H + 00H + 04H + 00H + 02H = 16 + 0 + 4 + 0 + 2 = 22 (sum)
22 (sum) ÷ 128 = 0 (quotient) ... 22 (remainder)
checksum = 128 - 22 (remainder) = 106 = 6AH

This means that F0 41 10 00 43 12 10 00 04 00 02 6A F7 is the message should be sent.

<Example2> Getting Temporary Performance data (RQ1)

cf.) This operation is the same as Bulk Dump Temporary function in Utility.
According to the "Parameter Address Map" (p. 153), the start address of Temporary Setup is assigned as following:

10 00 00 00H	Setup Common
	:
10 00 69 00H	Setup Tone Wheel 10 Backup

As the data size of Setup Tone Wheel Back up is 00 00 00 0BH, summation of the size and the start address of Setup Tone Wheel 10 Back up at Temporary Setup will be;

```
   10 00 69 00H
+) 00 00 00 0BH
   10 00 69 0BH
```

And the size that have to be got should be;

```
   10 00 69 0BH
-) 10 00 00 00H
   00 00 69 0BH
```

Therefore the system exclusive message should be sent is;

F0	41	10	00 43	11	10 00 00 00	00 00 69 0B	??	F7
(1)	(2)	(3)	(4)	(5)	address	data	checksum	(6)

(1) Exclusive Status (2) ID (Roland) (3) Device ID (17)
(4) Model ID (RD-700) (5) Command ID (RQ1) (6) End of Exclusive

Calculating the checksum as shown in <Example 2>, we get a message of F0 41 10 00 43 11 10 00 00 00 00 69 0B 7C to be transmitted.

■The Scale Tune Feature (address: 40 1x 40)

The scale Tune feature allows you to finely adjust the individual pitch of the notes from C through B. Though the settings are made while working with one octave, the fine adjustments will affect all octaves. By making the appropriate Scale Tune settings, you can obtain a complete variety of tuning methods other than equal temperament. As examples, three possible types of scale setting are explained below.

❍Equal Temperament

This method of tuning divides the octave into 12 equal parts. It is currently the most widely used form of tuning, especially in occidental music. On the RD-700, the default settings for the Scale Tune feature produce equal temperament.

❍Just Temperament (Tonic of C)

The principal triads resound much more beautifully than with equal temperament, but this benefit can only be obtained in one key. If transposed, the chords tend to become ambiguous. The example given involves settings for a key in which C is the keynote.

❍Arabian Scale

By altering the setting for Scale Tune, you can obtain a variety of other tunings suited for ethnic music. For example, the settings introduced below will set the unit to use the Arabian Scale.

Example Settings

Note name	Equal Temperament	Just Temperament (Key-tone C)	Arabian Scale
C	0	0	-6
C#	0	-8	+45
D	0	+4	-2
Eb	0	+16	-12
E	0	-14	-51
F	0	-2	-8
F#	0	-10	+43
G	0	+2	-4
G#	0	+14	+47
A	0	-16	0
Bb	0	+14	-10
B	0	-12	-49

The values in the table are given in cents. Convert these values to hexadecimal, and transmit them as Exclusive data.
For example, to set the tune (C-B) of the Part 1 Arabian Scale, send the following data:
F0 41 10 42 12 40 11 40 3A 6D 3E 34 0D 38 6B 3C 6F 40 36 0F 76 F7

■ASCII Code Table

Setup Name of MIDI data are described the ASCII code in the table below.

D	H	Char	D	H	Char	D	H	Char
32	20H	SP	64	40H	@	96	60H	`
33	21H	!	65	41H	A	97	61H	a
34	22H	"	66	42H	B	98	62H	b
35	23H	#	67	43H	C	99	63H	c
36	24H	$	68	44H	D	100	64H	d
37	25H	%	69	45H	E	101	65H	e
38	26H	&	70	46H	F	102	66H	f
39	27H	`	71	47H	G	103	67H	g
40	28H	(	72	48H	H	104	68H	h
41	29H	)	73	49H	I	105	69H	i
42	2AH	*	74	4AH	J	106	6AH	j
43	2BH	+	75	4BH	K	107	6BH	k
44	2CH	,	76	4CH	L	108	6CH	l
45	2DH	–	77	4DH	M	109	6DH	m
46	2EH	.	78	4EH	N	110	6EH	n
47	2FH	/	79	4FH	O	111	6FH	o
48	30H	0	80	50H	P	112	70H	p
49	31H	1	81	51H	Q	113	71H	q
50	32H	2	82	52H	R	114	72H	r
51	33H	3	83	53H	S	115	73H	s
52	34H	4	84	54H	T	116	74H	t
53	35H	5	85	55H	U	117	75H	u
54	36H	6	86	56H	V	118	76H	v
55	37H	7	87	57H	W	119	77H	w
56	38H	8	88	58H	X	120	78H	x
57	39H	9	89	59H	Y	121	79H	y
58	3AH	:	90	5AH	Z	122	7AH	z
59	3BH	;	91	5BH	[	123	7BH	{
60	3CH	<	92	5CH	\	124	7CH	|
61	3DH	=	93	5DH	]	125	7DH	}
62	3EH	>	94	5EH	^			
63	3FH	?	95	5FH	_			

D: decimal
H: hexadecimal

* "SP" is space.

Digital Piano
Model RD-700

MIDI Implementation Chart

Date: Mar. 1, 2001
Version: 1.00

Function...		Transmitted	Recognized	Remarks
Basic	Default	1–16	1–16	
Channel	Changed	1–16	1–16	Memorized
Mode	Default	Mode 3	Mode 3	
	Messages	Mono, Poly	Mode 3, 4 (M = 1)	* 2
	Altered	**********		
Note		0–127	0–127	
Number :	True Voice	**********	0–127	
Velocity	Note On	O	O	
	Note Off	X 8n V=64	O	
After	Key's	X	O *4	
Touch	Channel's	O *5	O *4	
Pitch Bend		O	O *1	
Control	0, 32	O *1	O *1	Bank select
Change	1	O	O *1	Modulation
	2	O *5	O *5	Breath type
	4	O *5	O *5	Foot type
	5	O	O	Portamento time
	6, 38	O	O	Data entry
	7	O	O *1	Volume
	8	O *5	O *5	Balance
	10	O	O *1	Panpot
	11	O *5	O	Expression
	16	O *5	O *5	General purpose controller 1
	17	O *5	O *5	General purpose controller 2
	18	O *5	O *5	General purpose controller 3
	19	O *5	O *5	General purpose controller 4
	64	O	O *1	Hold 1
	65	O	O	Portamento
	66	O	O	Sostenuto
	67	O	O	Soft
	68	O *5	O *5	Legato foot switch
	69	O *5	O *5	Hold 2
	70	O *5	O *5	Sound variation
	71	O	O	Resonance

72	O		O		Release time
73	O		O		Attack Time
74	O		O		Cuttoff
75	O	*5	O	*4	Decay time
76	O	*5	O	*4	Vibrato rate
77	O	*5	O	*4	Vibrato depth
78	O	*5	O	*4	Vibrato delay
80	O	*5	O	*5	General purpose controller 5
81	O	*5	O	*5	General purpose controller 6
82	O	*5	O	*5	General purpose controller 7
83	O	*5	O	*5	General purpose controller 8
84	O	*5	O	*5	Portamento control
91	O		O (Reverb)		General purpose effects 1
92	O	*5	O	*5	Tremolo
93	O		O (Chorus)		General purpose effects 3
94	O	*5	O	*5	Celeste
95	O	*5	O	*5	Phaser
1–31, 33–95	O		O		Foot Controller 1/2
1–31, 33–95	O		O		MFX Control
98, 99	X		X		NRPN LSB, MSB
100, 101	O		O		RPN LSB, MSB
Program Change : True Number	O **********	*1	O 0–127	*1	 Program No. 1–128
System Exclusive	O	*3	O	*1	
System Common : Song Position	X		X		
: Song Select	X		X		
: Tune Request	X		X		
System Real Time : Clock	X		O	*1	
: Commands	O		X		
Aux Messages : All Sound Off	X		O (120, 126, 127)		
: Reset All Controllers	X		O		
: Local On/Off	X		X		
: All Notes Off	X		O (123–127)		
: Active Sensing	O		O		
: System Reset	X		X		
Notes	* 1 O X is selectable. * 2 Recognized as M=1 even if M≠1. * 3 Transmits when Data Transfer is executed or RQ1 received. * 4 GM Mode only. * 5 Transmits and receives by FC or MFX Control when these messages are assigned.				

Mode 1 : OMNI ON, POLY
Mode 2 : OMNI ON, MONO
Mode 3 : OMNI OFF, POLY
Mode 4 : OMNI OFF, MONO

O : Yes
X : No

Main Specifications

RD-700: Digital Piano (Conforms to General MIDI 2 System)

● Keyboard

88 keys (Progressive Hammer Action Keyboard)

● Part

16

● Maximum Polyphony

128 voices

● Wave Memory

64 M bytes (16-bit linear equivalent)

● Expansion Slot

Wave Expansion Board SRX Series: 2 slots (*1)

● Tones

468

(Normal Tones:189, Tone Wheel Organ: 10,
General MIDI 2 Tones: 256, Rhythm Sets: 4,
General MIDI 2 Rhythm Sets: 9)

● Setups

100

● Effects

Multi-Effects: 65 types
Reverb: 4 types
Chorus: 2 types
Equalizer: Digital 3 Band

● Arpeggiator

45 styles

● Rhythm Pattern

85 styles

● Controllers

PART VOLUME slider (x 4),
EQUALIZER knobs,
REVERB knob, CHORUS knob,
MULTI EFFECTS CONTROL knob,
Pitch Bend/Modulation lever

● Display

128 x 64 dots, Full Graphic LCD (backlit LCD)

● Connectors

Output Jacks (L/MONO, R)
Pedal Jacks (Damper, FC 1, FC 2)
MIDI Connectors (IN, OUT, THRU)
Headphones Jack

● Power Supply

AC 117 V, AC 230 V, AC 240 V

● Power Consumption

12 W

● Dimensions

1,414 (W) x 374 (D) x 143 (H) mm
55-11/16 (W) x 14-3/4 (D) x 5-11/16 (H) inches

● Weight

24.1 kg / 53 lbs 3 oz

● Accessories

Owner's Manual
Pedal
Power Cable

● Options

Wave Expansion Board SRX Series (*1)
Keyboard Stand (KS-17)
Pedal (DP Series)
Expression Pedal (EV-5)

*1 *Tones may sound differently, and the number of them that can be selected may differ compared with synthesizers in the Roland XV series.*

NOTE

In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.

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Purpose-Oriented Index

This index lists the main setting items relevant to play of the RD-700's keyboard.

** [Edit]: aaa: bbb" indicates the bbb parameter in Edit screen aaa.*

Volume Setting

Changing the Volume for the entire RD-700
.....VOLUME Slider (p. 25)
.....[EDIT]: System: Master Volume (p. 70)

Changing the volume for Individual Local Parts
..... PART LEVEL Slider (p. 45)

Changing the volume for each Internal Part
.....[EDIT]: Internal Part Prm: Volume (p. 90)

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Changing the key touch .....[EDIT]: Key Touch (p. 71)

Changing the value of velocity for each Local Part
.....[EDIT]: Local Part Param: Velocity Sens (p. 88)
.....[EDIT]: Local Part Param: Velocity Max (p. 88)

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Preventing equalizer settings from being switched
..... [EDIT]: System: EQ Control (p. 70)

Setting the Equalizer..... EQUALIZER knob (p. 48)
..... [EDIT]: Control/EQ (p. 73)
.....PIANO EDIT: EQ (p. 67)

Pitch and Tuning

Changing the pitch for the entire RD-700
.....[EDIT]: System: Master Tune (p. 29)

Transposing the entire keyboard .....[TRNSPOSE] (p. 46)

Changing the pitch for each Tone
.....[EDIT]: Tone Edit: Coarse Tune (p. 80)
.....[EDIT]: Tone Edit: Fine Tune (p. 80)
..... [EDIT]: Tone Edit: Stretch Tune (p. 81)

Changing the pitch for each Local Part
..... [EDIT]: Local Part Param: Key Transpose (p. 88)

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.....[EDIT]: Internal Part Prm: Temperament (p. 91)

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Changing the amount of reverb for the entire RD-700
.....REVERB knob (p. 47)

Changing the amount of reverb for each Tone
.....[EDIT]: Tone Edit: Reverb Amount (p. 80)

Changing the amount of reverb for Piano Tone
.....PIANO EDIT: Reverb Level (p. 67)

Changing the reverb type
.....[EDIT]: MFX/Reverb/Chorus: Reverb Type (p. 80)

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.....CHORUS knob (p. 47)

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..... [EDIT]: MFX/Reverb/Chorus: Type (p. 77)

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Selecting the Part that the Multi-Effects applied to
..... [EDIT]: MFX/Reverb/Chorus: MFX Source (p. 77)

Setting the Multi-Effects ON/OFF for Individual Parts
.....[EDIT]: Internal Part Prm: MFX Switch (p. 90)

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Disabling the Pedal or Bender for Individual Parts
..... [EDIT]: Local Part Param: ** Switch (p. 89)

Changing the function of the [CONTROL] knob
.....[EDIT]: Control/EQ: Control (p. 74)

Changing the function of the pedals
.....[EDIT]: Control/EQ: FC1, FC2 (p. 73)

Key Range

Setting the Key Range for each Local Part
..... [EDIT]: Local Part Param: Key Range (p. 88)

MEMO

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When you need repair service, call your nearest Roland Service Center or authorized Roland distributor in your country as shown below.

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535500 Gheorgheni, ROMANIA
TEL: (266) 364 609

RUSSIA
MuTek
3-Bogatyrskaya Str. 1.k.l
107 564 Moscow, RUSSIA
TEL: (095) 169 5043

SPAIN
Roland Electronics de España, S. A.
Calle Bolivia 239, 08020
Barcelona, SPAIN
TEL: (93) 308 1000

SWEDEN
Roland Scandinavia A/S SWEDISH SALES OFFICE
Danvik Center 28, 2 tr.
S-131 30 Nacka SWEDEN
TEL: (0)8 702 00 20

SWITZERLAND
Roland (Switzerland) AG
Landstrasse 5, Postfach,
CH-4452 Itingen,
SWITZERLAND
TEL: (061) 927-8383

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Mira Str. 19/108
P.O. Box 180
295400 Munkachevo, UKRAINE
TEL: (03131) 414-40

UNITED KINGDOM
Roland (U.K.) Ltd.
Atlantic Close, Swansea
Enterprise Park, SWANSEA
SA7 9FJ,
UNITED KINGDOM
TEL: (01792) 702701

MIDDLE EAST

BAHRAIN
Moon Stores
No.16, Bab Al Bahrain Avenue,
P.O.Box 247, Manama 304,
State of BAHRAIN
TEL: 211 005

CYPRUS
Radex Sound Equipment Ltd.
17, Diagorou Street, Nicosia,
CYPRUS
TEL: (022) 66-9426

IRAN
MOCO, INC.
No.41 Nike St., Dr.Shariyati Ave.,
Roberoye Cerahe Mirdamad
Tehran, IRAN
TEL: (021) 285-4169

ISRAEL
Halilit P. Greenspoon & Sons Ltd.
8 Retzif Ha'aliya Hashnya St.
Tel-Aviv-Yafo ISRAEL
TEL: (03) 6823666

JORDAN
AMMAN Trading Agency
245 Prince Mohammad St.,
Amman 1118, JORDAN
TEL: (06) 464-1200

KUWAIT
Easa Husain Al Yousifi Est.
Abdullah Salem Street,
Safat, KUWAIT
TEL: 243-6399

LEBANON
Chahine S.A.L.
Gerge Zeidan St., Chahine Bldg.,
Achrafieh, P.O.Box: 16-5857
Beirut, LEBANON
TEL: (01) 20-1441

QATAR
Al Emadi Co. (Badie Studio & Stores)
P.O. Box 62, Doha, QATAR
TEL: 4423-554

SAUDI ARABIA
aDawliah Universal Electronics APL
Corniche Road, Aldossary Bldg.,
1st Floor, Alkhobar,
SAUDI ARABIA

P.O.Box 2154, Alkhobar 31952
SAUDI ARABIA
TEL: (03) 898 2081

SYRIA
Technical Light & Sound Center
Rawda, Abdul Qader Jazairi St.
Bldg. No. 21, P.O.BOX 13520,
Damascus, SYRIA
TEL: (011) 223-5384

TURKEY
Ant Muzik Aletleri Ithalat Ve Ihracat Ltd Sti
Siraselviler Caddesi Siraselviler
Pasaji No:74/20
Taksim - Istanbul, TURKEY
TEL: (0212) 2449624

U.A.E.
Zak Electronics & Musical Instruments Co. L.L.C.
Zabeel Road, Al Sherooq Bldg.,
No. 14, Grand Floor, Dubai, U.A.E.
TEL: (04) 3360715

NORTH AMERICA

CANADA
Roland Canada Music Ltd. (Head Office)
5480 Parkwood Way Richmond
B. C., V6V 2M4 CANADA
TEL: (604) 270 6626

Roland Canada Music Ltd. (Toronto Office)
170 Admiral Boulevard
Mississauga On L5T 2N6
CANADA
TEL: (905) 362 9707

U. S. A.
Roland Corporation U.S.
5100 S. Eastern Avenue
Los Angeles, CA 90040-2938,
U. S. A.
TEL: (323) 890 3700

As of May 1, 2004 (Roland)

For EU Countries

CE

This product complies with the requirements of European Directives EMC 89/336/EEC and LVD 73/23/EEC.

For the USA

FEDERAL COMMUNICATIONS COMMISSION
RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

Unauthorized changes or modification to this system can void the users authority to operate this equipment.
This equipment requires shielded interface cables in order to meet FCC class B Limit.

For Canada

NOTICE

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

AVIS

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

This owner's manual is printed on recycled paper.

Roland Corporation

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